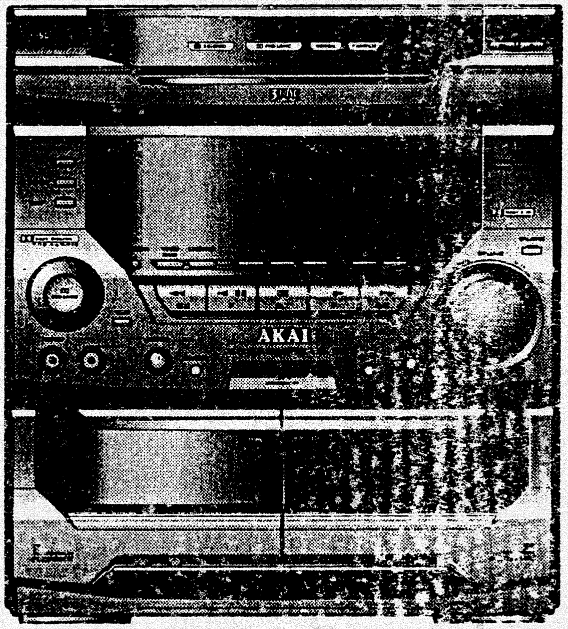
AKAI SERVICE MANUAL



- The above illustration shows the AC-620 model.

DOLBY B NR

COMPACT disc DIGITAL AUDIO

DOLBY SURROUND
PRO • LOGIC

MINI STEREO COMPONENT SYSTEM

MODEL **AC-420/423R/425K**

MODEL **AC-620/623R/625K**

MODEL **SR-425**

CONTENTS

SAFETY INSTRUCTIONS 2

INFORMATIONS 3

SPECIFICATIONS 4

CONTROLS 6

I. DISASSEMBLY 8

II. PRINCIPAL PARTS LOCATION 9

III. DISASSEMBLY OF MAIN COMPONENTS 11

IV. MECHANICAL ADJUSTMENT 16

V. ELECTRICAL ADJUSTMENT 17

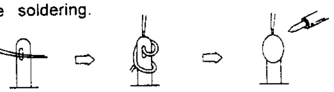
VI. PARTS LIST 19

VII. ABBREVITIONS 35

SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ (*) symbol parts are critical for safety. Replace them only with parts whose numbers are specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selection switches, RF cables, noise-blocking capacitors, noise-blocking filters, etc.
3. Use specified internal Wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulating Tape
   2) PVC tubing
   3) Spacers (insulating barriers)
   4) Insulating sheets for transistors
   5) Plastic screws for fixing micro switches
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitor, etc.), wrap ends of wires securely about the terminals before soldering.



6. Make sure that wires do not contact heat generating parts (heat sinks, oxide metal film resistors, fusible resistors, etc.)
7. Check if replaced wires do not contact sharply edged or pointed parts.
8. Also check areas surrounding repaired parts.
9. Make sure that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.
Please leave them at an appropriate depot.

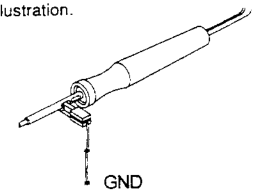
SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to check if exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts, (such as chassis, ground terminal, microphone jacks, signal input/output connectors, etc.) and the earth ground through a resister of 1500 ohm paralleled with a 0.15μF capacitor, under the unit's normal working condition.
The leakage-current should be less the 0.5mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch "ON" (if included). The resistance should be more than 2.2Mohms.

PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points

1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts.
2. When the base is removed for repair or adjustment. Make sure that there are no metal objects between the P.C board or the mecha parts and the base.
3. The Micro-Computer and the CD signal processing ICs may be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration.



4. Do not loosen any screws in the pick-up block. Please refer to NOTE when replacing the pick up block.
5. To avoid hazardous invisible Laser Radiation, do not look at the Laser Beam (Objective lens) directly.
6. On model for some countries, laser warning labels are affixed on and inside of the unit as shown below. For your safety, read these labels carefully before repairing or adjusting the unit.

CAUTION

The use of controls or adjustments or the performance of procedures other than those specified herein may result in hazardous radiation.
[EUROPE, SCANDINAVIA, UK and AUSTRALIA]

CLASS 1 LASER PRODUCT
KLASSE 1 LASER PRODUKT
LUOKAN 1 LASER LAITE
KLASS 1 LASER APPARAT

Label affixed on the rear panel of the unit

CAUTION: INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED, AVOID EXPOSURE TO BEAM
ADVARSEL: USYNLIG LASERSTRÅLING VED ÅBNING. SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDÆTTELSE FOR STRÅLING.
VARO: AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLA LASERSÄTEILYLLE
ÄLÄ KATSO SÄTEESEEN!
VARNING: OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN!

Label affixed on the CD MECHA BLOCK

INFORMATION

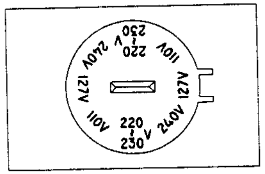
SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbol	Principal Destination
A	USA
B	UK
E	Europe (except, UK)
S	Australia
V	Germany
U	Universal
Y*	Custom version

VOLTAGE CONVERSION(U Y Model only)

Before connecting the power cord, set the VOLTAGE SELECTOR located on the rear panel of the AC-425K/625K so that the correct voltage for your area is indicated.



[U5,U8, Y6, Y7]

TEST MODE

Various kind of test modes are installed in this unit's microcomputer in order to test them on the production line. Following test modes among the various test modes can be used for adjustment, operation check or maintenance. To terminate the test mode, simply press the "POWER ON/STANDBY " button or disconnect the AC power cord from the AC outlet.

1. DECK TEST MODE

This test mode can be used for tape speed adjustment as well as bias oscillator frequency adjustment in TAPE DECK section.

While pressing and holding the "TAPE II" and "►" (F) buttons, connect the AC power cord to AC outlet. The function turns to "TAPE I" and "DUBX1" as well as "T P I 0 0 0 0" indicators on the FLD light when this mode is engaged.

2. DECK CLEANING MODE

This test mode can be used for cleaning of the TAPE DECK mechanism.

Because, this mode enables engaging of the playback, fast forward (FF), and rewind (RWD) modes without a cassette tape, it makes the cleaning (such as the capstan shaft, magnetic head, pinch roller etc.,) easier. While pressing and holding the "TAPE I" and "◄ II" (F) button, connect the AC power cord to the AC outlet. The tape run indicator lightwithout the cassette tape when this mode is engaged.

SPECIFICATIONS

[Tuner Section]

Frequency range	
FM	87.5-108MHz(50KHz step)
MW	530-1710KHz(U8)
	531-1602KHz (except U8)
LW	144-288KHz(1KHz step) (E1/E2/E3/B1 only)
SW	3.8-12.5MHz(5KHz step) (Y7 only)
USABLE SENSITIVITY	
FM	16.2dBf IHF,3%THD (except E1/E2/E3/B1)
	20.2dBf IHF,3%THD (E1/E2/E3/B1)
MW	500uV/m
LW	800uV/m
SW	800uV/m
S/N Ratio(IHF)	
FM	MONO 75dB, STEREO 65dB
MW	40dB
LW	30dB
SW	30dB
Stereo separation	40dB(at 1KHz)

[AMPLIFIER Section]

Power output	(AC-420/423R/425K) 50W+50W(6ohms, 10%THD, EIAJ)
	40W+40W (6ohms, 1%THD, DIN)
	(AC-620/623R/625K) 30W+30W(6ohms, 10%THD, EIAJ)
	25W+25W (6ohms, 1%THD, DIN)
Input sensitivity (AUX IN)	310mV/47KΩ
channel separation	70dB
Frequency response	10Hz-100KHz(-3dB)

[DECK SECTION]

Track system	4track, 2channel system
Frequency response	40Hz-15KHz (Normal tape, ±3dB)
	40Hz-16KHz(Cro2 tape, ±3dB)
Wow & Flutter	0.09% (WRMS), 0.15%(DIN)
S/N ratio	Dolby B 63dB (5KHz)
	Dolby off 53dB (Cro2 tape)
Total harmonic distortion	less than 0.5%(normal tape at 315Hz)
Channel separation	43dB

[CD SECTION]

Pick up system	3Beam Laser
Sampling frequency	44.1KHz
Error correction system	Cross interleave read solomon
Number of channels	2Channe
Frequency response	20Hz-20KHz
Wow & Flutter	Below measurable limits
S/N ratio	83dB
Total harmonic distortion	0.035% (at 1KHz)
Channel separation	73dB(at 1KHz)
Dynamic range	82dB (at 1KHz)

[GENERAL]

Power requirement	
E1/E2/E3/B1/S1	AC 220-230V/50Hz
U5/U8/Y6/Y7	AC110/127/220-230/240V, 50/60Hz
Power consumption	110W/AC-420/423R/425K, 130W/AC-620/623R/625K
Weight	8.2Kg/AC-420/423R/425K, 8.2Kg/AC-620/623R/625K

[SPEAKER SECTION]

ITEM	SR-425
System Constructions	3-way 3-speakers
Woofer Unit	135mm Cone type
Midrange Unit.	65mm Cone type
Tweeter Unit	20mm dome type (piezo)
System Impedance	6Ω
Maxium Power Input	80w
Sensitivity	more than 87dB/w/m
Frequency Response	60Hz-20KHz
Harmonic Distortion	less than 3%
Enclosure Type	bass reflex type
Units Layout	L/R mirror layout
Dimension	200(W)X305(H)X265(D)
Net Weight	3.6Kg/pc

For improvement purposes, specifications and design are subject to change without notice.
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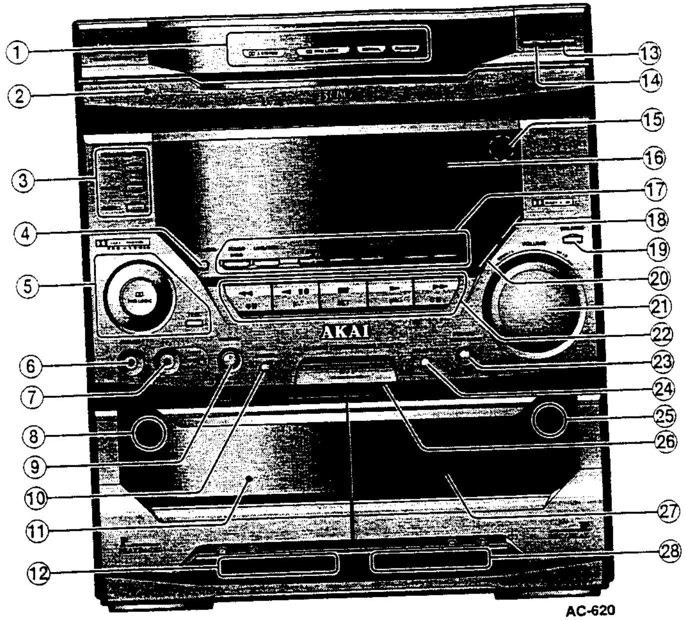
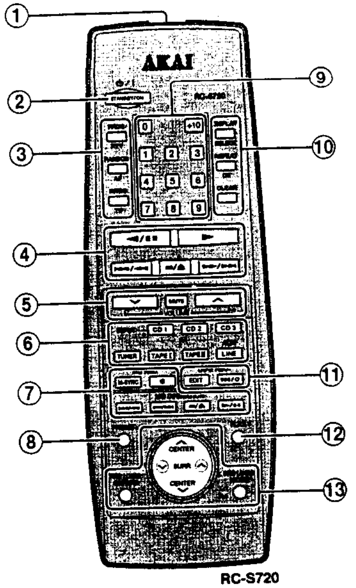
CONTROLS

Ⓐ MAIN UNIT



1. PRO LOGIC mode indicators (AC-620/623R/625K)
   ᗡD 3 STEREO indicators
   ᗡD PRO LOGIC - NORMAL indicaators
   ᗡD PROG logic - PHANTOM indicators
2. Disc tray
3. TIMER CONTROL buttons
   PROG button
   ON/OFF button
   SLEEP button
4. CH MEMO button
5. DOLBY PROG LOGIC operation buttons(AC-620/623R/625K only)
   ᗡD PROG LOGIC on/off button
   TEST button
6. PHONES jack
7. MIC jack
8. Tape deck I PUSH OPEN button
9. Mixing control
10. Dimmer button
11. Tape deck I cassette compartment
12. Tape deck I direction indicator and transportation indicator
13. TRAY OPEN/CLOSE button
14. DISC CHANGE button
15. Remote sensor
16. System FL display
17. Input source select buttons(AUX is not included on the AC-420/423R/425K models)
    TUNER BAND, LIINE/AUX, CD1, CD2, CD3, TAPE I, TAPE II
18. DUB SPEEDx1/x2 button
19. BALANCE button
20. REC button
21. Volume control
22. Multi-function buttons
23. DYNAMIC SUPER BASS button
24. DOLBY NR button
25. Tape deck II PUSH OPEN button
26. STANDBY/ POWER ON button
27. Tape deck II cassette compartment
28. Tape deck II direction indicator and transportation indicator

B Remote Control



RC-S720

When using the remote control for operation, make sure that it is pointing to the remote sensor window on the main unit.

1. Transmitting window
2. ⏻/I POWER ON/STANDBY button
3. CD operation buttons/RDS buttons (The RDS function is only available on the AC-423R/623R)
4. Multi-function buttons
5. VOLUME buttons
6. Input source select buttons
7. MD operation buttons
   - M-SYNC buttons
   - ● REC button
   - I◀◀/◀◀ buttons
   - ▶▶/▶▶I buttons
   - ■/▲ buttons
   - ▶/II buttons
8. PRESET button
9. CD/TUNER 11 KEY buttons
10. CD operation buttons/RDS buttons (The RDS function is only available on the AC-423R/623R)
11. TAPE REC buttons
    - I•I/O REC/PAUSE button
    - EDIT button
12. FLAT button
13. PRO LOGIC operation buttons
    - PROG LOGIC ON/OFF buttons
    - PROG LOGIC MODE button
    - CENTER ^/v buttons
    - SURRound ^/v buttons

• These PROG LOGIC operation buttons are not included on the RC-S520 remote control (for AC-420/423R/425K model operation)
These MD operation buttons can only be used if you have connected the optional MD recorder (MD-720).

Note:
The remote control can not be used for some functions that require the combined pressing of two tape transportation buttons (intro scan or auto play for example). Please Use the Main unit's multi-function buttons for the operation of such functions.

I. DISASSEMBLY

1-1. REMOVE OF MAIN COVER
1) Remove the seven screws on back and six screws on both sides.
2) Remove the MAIN COVER

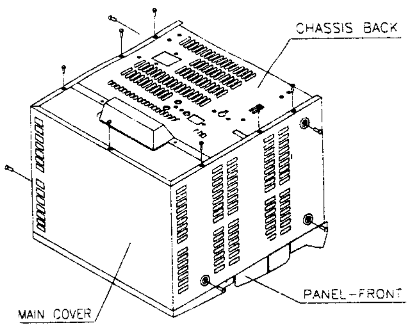


Fig. 1-1

1-2. REMOVE OF CD MECHA & FRONT PANEL
1) Remove the CD door
2) Remove the four screws (A) on both sides and disconnect three connectors and the flat cable from the TC-DK P.C.B.
3) Remove the CD player block
4) Remove the three screws (B) and two screws (C) on both sides.
5) Remove the FRONT PANEL

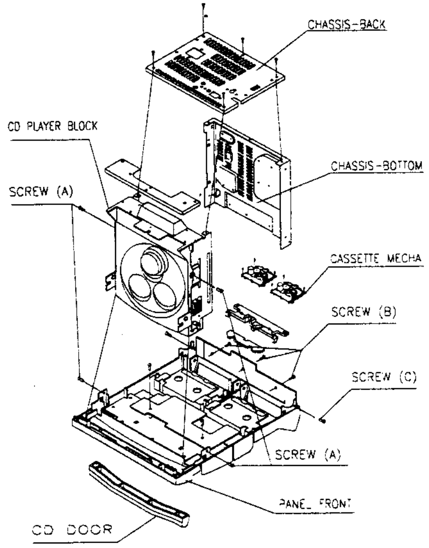


Fig. 1-2

II. PRINCIPAL PARTS LOCATION

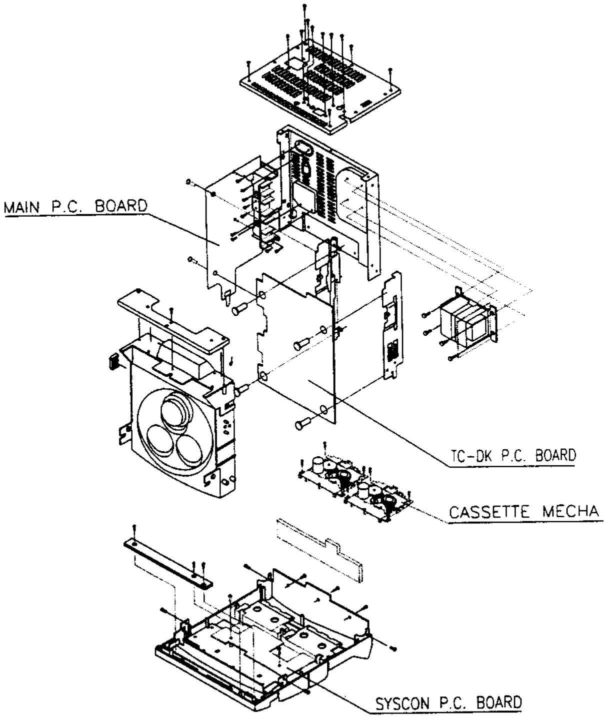

MAIN P.C. BOARD
TC-DK P.C. BOARD
CASSETTE MECHA
SYSCON P.C. BOARD

Fig. 2-1

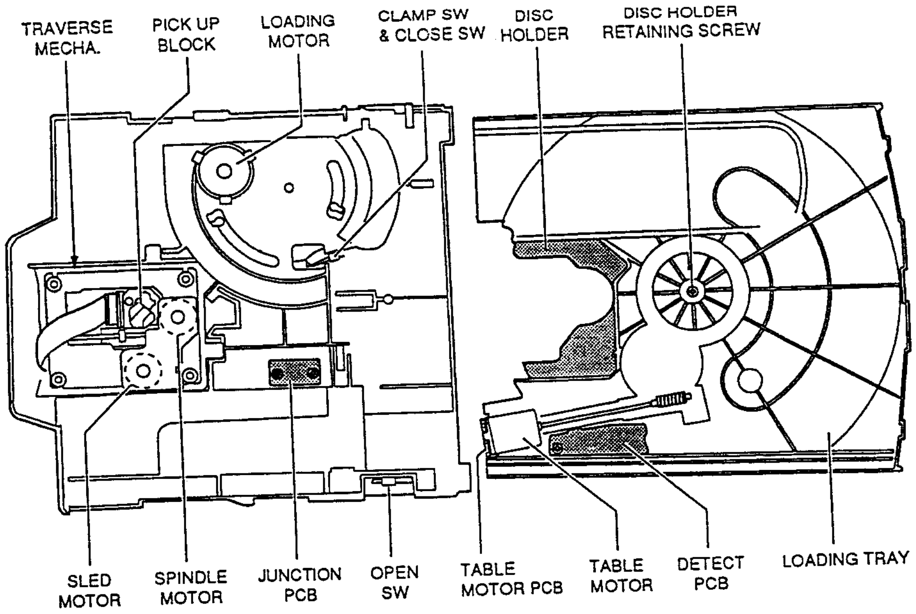

TRAVERSE MECHA.
PICK UP BLOCK
LOADING MOTOR
CLAMP SW & CLOSE SW
DISC HOLDER
DISC HOLDER RETAINING SCREW
SLED MOTOR
SPINDLE MOTOR
JUNCTION PCB
OPEN SW
TABLE MOTOR PCB
TABLE MOTOR
DETECT PCB
LOADING TRAY

Fig. 2-2 CD PLAYER BLOCK

III. DISASSEMBLY OF THE MAIN COMPONENTS

3-1. CD PLAYER BLOCK

∗ Remove the CD PLAYER BLOCK before proceeding.

3-1-1. Removal of the TRAVERSE MECHA.

1) Remove the TRAVERSE COVER by releasing the two tabs in the direction of the arrow as shown in Fig. 3-1.

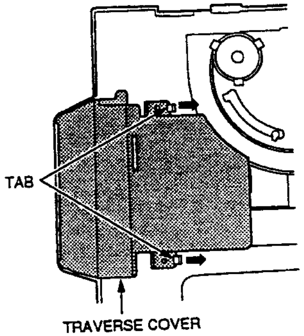


Fig. 3-1

2) Short the circuit on the PICK UP BLOCK with solder as shown in Fig. 3-2.

Note : To protect the laser diode from damage caused by high voltage static electricity, a part of the PCB on the PICK UP BLOCK has to be shorted before disconnecting the connectors. After replacement, be sure to connect the two connectors and then remove the solder of the shorted circuit before turning the power ON.

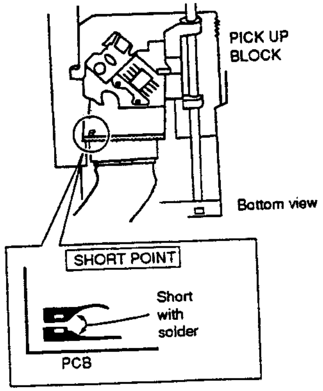


Fig. 3-2

3) Disconnect the two connectors carefully.

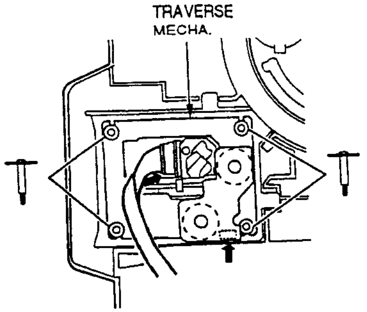


Fig. 3-3

4) Remove the four retaining screws, then remove the TRAVERSE MECHA.

5) Proceed in the reverse order for installation but never unsolder the shorted circuit before connecting the three connectors.

3-1-2. Replacement of the SLED MOTOR

1) Remove the TRAVERSE MECHA (refer to section 3-1-1)

2) Unsolder the leads of the SLED and SPINDLE MOTORS then remove the MOTOR PCB.

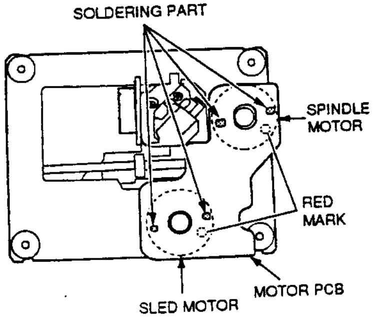


Fig. 3-4

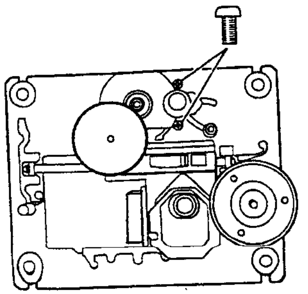


Fig. 3-5

3) Remove the two retaining screws, then remove the SLED MOTOR.
Next, extract the plastic gear from the motor shaft and attach it onto the new motor's shaft.

4) Reassemble in the reverse order.

About the SPINDLE MOTOR:
Replacement of the SPINDLE MOTOR itself is not recommended, because adjustment of the TURN TABLE height is quite critical and requires the use of a special jig.

3-1-3. Replacement of the PICK UP BLOCK

1) Remove the TRAVERSE MECHA (refer to section 3-1-1).

2) While pressing the Ⓐ stopper upwards, pull the SLIDE SHAFT to the right to remove the PICK UP BLOCK, then replace the PICK UP BLOCK.

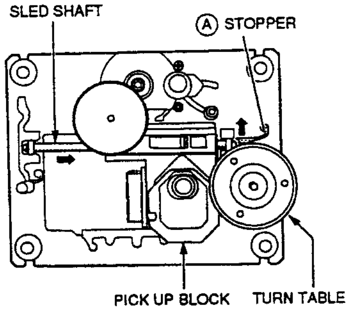


Fig. 3-6

3) Reassemble in the reverse order.

3-1-4. Replacement of the LOADING MOTOR

1) Slide the protruding part of the GEAR HOLDER PART in the direction of the arrow, then pull out the TRAY BLOCK.

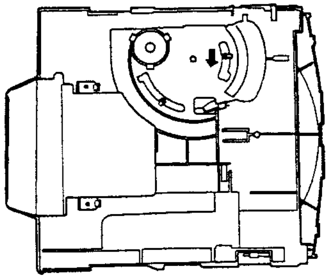


Fig. 3-7

2) Unhook the LOADING BELT with tweezers.

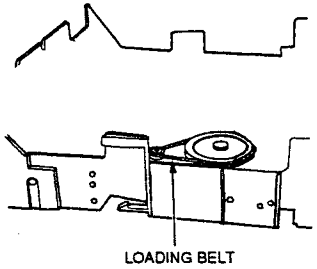


Fig. 3-8

3) Unsolder the lead wires of the LOADING MOTOR with a soldering iron.

4) While releasing the LOADING MOTOR's three retaining hooks, push the motor pully part down with your middle finger to remove the LOADING MOTOR, then replace it.

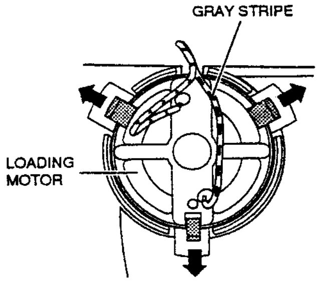


Fig. 3-9

5) Reassemble in the reverse order. Make sure that the wire with the gray stripe is connected to the motor's O marked terminal when soldering.

3-1-5. Removal of the TRAY BLOCK

1) If the TRAY BLOCK is in the "in" position, slide the protruding part of the GEAR HOLDER PART in the direction of the arrow and pull out the TRAY BLOCK slowly (refer to Fig. 3-7).

2) In order to disengage the two stoppers, carefully press the Ⓐ part of the TRAY BLOCK downwards while pulling the TRAY BLOCK out as shown in Fig. 3-10.

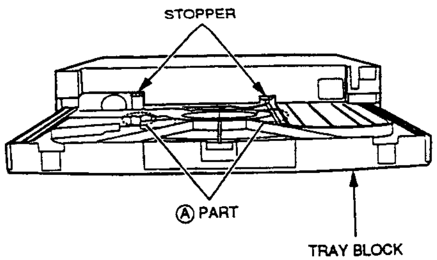

STOPPER
Ⓐ PART
TRAY BLOCK

Fig. 3-10

4) Remove the TRAY BLOCK by pulling it out carefully.
5) Reassemble in the reverse order for installation. When reattaching the TRAY BLOCK to the chassis, carefully align the guides on both sides of the TRAY BLOCK with their corresponding rails on the chassis. Also, make sure that any one of the reference marks on the DISC HOLDER aligns with the reference mark on the LOADING TRAY.

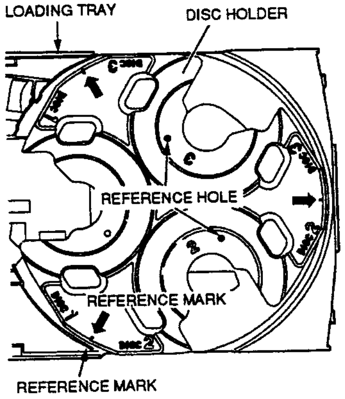

LOADING TRAY
DISC HOLDER
REFERENCE HOLE
REFERENCE MARK
REFERENCE MARK

Fig. 3-11

Next, move the head of the GEAR HOLDER PART in the direction of the arrow before engaging the stoppers as shown in Fig. 3-12.

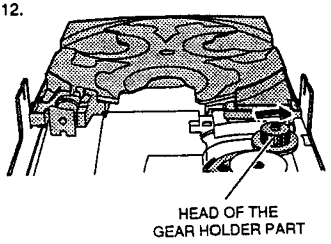

HEAD OF THE
GEAR HOLDER PART

Fig. 3-12

3-1-6. Replacement of the TABLE MOTOR

1) Remove the TRAY BLOCK (refer to section 3-1-5).
2) Remove the DISC HOLDER retaining screw then remove the DISC HOLDER.

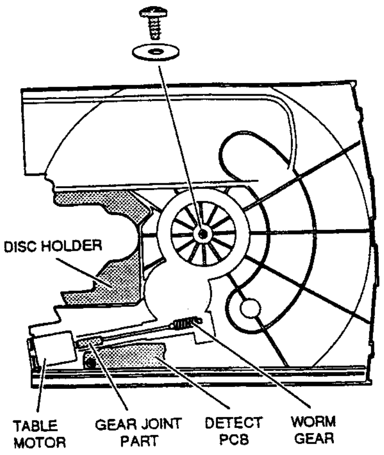

DISC HOLDER
TABLE
MOTOR
GEAR JOINT
PART
DETECT
PCB
WORM
GEAR

Fig. 3-13

3) Unsolder the leads of the TABLE MOTOR and remove the TABLE MOTOR PCB.

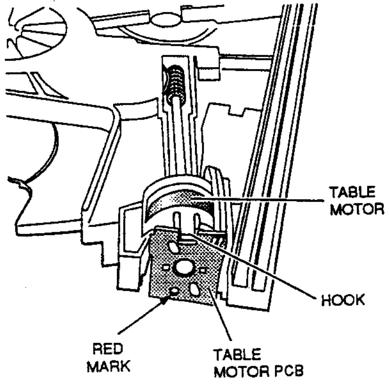


TABLE
MOTOR
HOOK
RED
MARK
TABLE
MOTOR PCB

Fig. 3-14

4) Remove the TABLE MOTOR by pulling it out while openin the TABLE MOTOR retaining hook. Next, remove th WORM GEAR BLOCK by pulling the GEAR JOINT PAR out and attach it to the new motor as shown in Fig. 3-1
5) Reassemble in the reverse order.
   - When soldering the TABLE MOTOR PCB on the TABL MOTOR, the TABLE MOTOR's red mark must be visib through the hole on the TABLE MOTOR PCB.
   - When attaching the DISC HOLDER on the LOADIN TRAY, make sure to place the DISC HOLDER so th any one of the three reference marks aligns with th reference mark on the LOADING TRAY (any tw reference holes on the DISC HOLDER align with th corresponding reference holes on the LOADING TR accordingly). (Refer to Fig. 3-11)

3-2. TAPE-I & TAPE-II MECHANISM BLOCK

* If CASSETTE MECHANISM BLOCK removal is intended, press both the "EJECT" buttons on the FRONT PANEL to open the CASSETTE HOLDERs and CASSETTE DOOR before proceeding (AC-600/603R/605K only).

3-2-1. Removal of the MECHANISM BLOCK

1) Remove the FRONT PANEL BLOCK.
2) Remove the four screws for each of the TAPE-I and TAPE-II MECHANISM BLOCKs then remove the MECHANISM BLOCKs from the FRONT PANEL BLOCK.

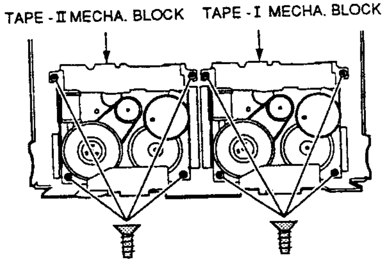

TAPE - II MECHA. BLOCK
TAPE - I MECHA. BLOCK

Fig. 3-15

3-2-2. Replacement of the CAPSTAN MOTOR

NOTE : After replacement, tape speed adjustment must be performed.

1) Unsolder the flat cable on the CAPSTAN MOTOR with a soldering iron.
2) While pressing the INTER-LOCK LEVER in the direction of the arrow, remove the two Ⓑ screws and then remove the CAPSTAN MOTOR.

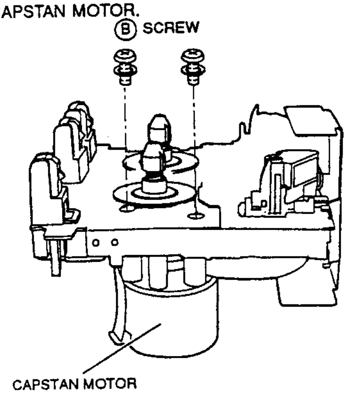

Ⓑ SCREW
CAPSTAN MOTOR

Fig. 3-16

3) Install a new motor and re-assemble in the reverse order for installation.

3-2-3. Replacement of the FR BELT

1) Unthread the MAIN BELT and replace the FR BELT as shown in Fig. 3-17.
2) Proceed in the reverse order for installation.

3-2-4. Replacement of the MAIN BELT

1) Remove the CAPSTAN MOTOR
2) Replace the MAIN BELT and re-assemble in the reverse order for installation.

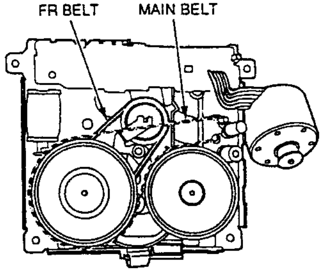

FR BELT
MAIN BELT

Fig. 3-17

3) After replacement, check the tape speed and if the result is not satisfactory, tape speed adjustment must be performed.

3-2-5. Replacement of the PINCH ROLLER BLOCK

1) Extract the PINCH ROLLER BLOCK upwards while releasing the pinch roller retaining hook in the direction of the arrow.

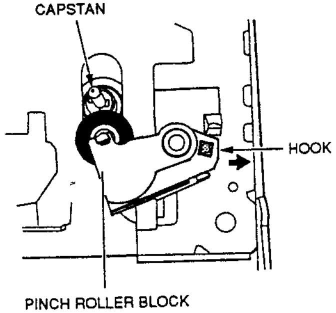

CAPSTAN
HOOK
PINCH ROLLER BLOCK

Fig. 3-18

2) Replace the PINCH ROLLER BLOCK and re-assemble in the reverse order. Attach the spring in the correct position when placing the PINCH ROLLER BLOCK.

3-2-6. Replacement of the PB HEAD OR REC/PB HEAD

1) Remove the two Ⓐ screws and remove the HEAD SHIELD PLATE.

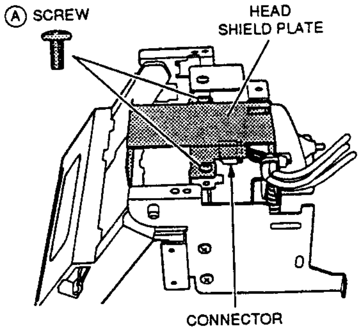

Ⓐ SCREW
HEAD SHIELD PLATE
CONNECTOR

Fig. 3-19

2) Disconnect the connector on the CONNECTOR PCB and remove the PCB retaining screw.

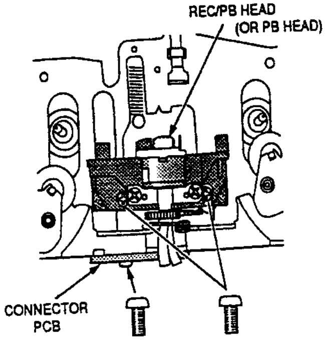

REC/PB HEAD
(OR PB HEAD)
CONNECTOR PCB

Fig. 3-20

3) Remove the two head retaining screws and remove the HEAD BLOCK.
4) Reassemble in the reverse order. After replacement, de-magnetize the HEAD then perform head azimuth adjustment.

IV. MECHANICAL ADJUSTMENT

4-1. ADJUSTMENT OF THE HEAD AZIMUTH ALIGNMENT

1) Connect an oscilloscope to the L-ch and R-ch LINE terminals of the unit.

2) Play back a 10 kHz (–15 dB), HEAD AZIMUTH ALIGNMENT TEST TAPE (TF-106CH) then adjust the HEAD AZIMUTH ALIGNMENT Ⓐ (FWD PLAY) and Ⓑ (REV PLAY) SCREWs respectively so that the waveform level of both the L-ch and R-ch are at maximum and also they are in the same phase in both FWD and REV directions. (Use a sharp edge philips type screwdriver that is de-magnetized for adjustment.)
Perform the adjustment on both the TAPE-I and TAPE-II heads if necessary.

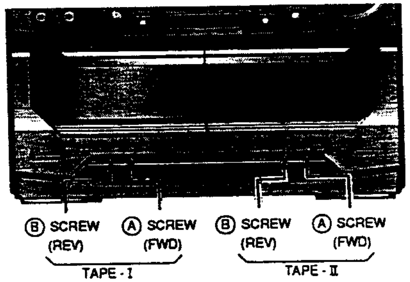

Ⓑ SCREW (REV)
Ⓐ SCREW (FWD)
TAPE - I
Ⓑ SCREW (REV)
Ⓐ SCREW (FWD)
TAPE - II

Fig. 4-1

V. ELECTRICAL ADJUSTMENT

5-1. TAPE DECK SECTION

NOTE :

1) The following adjustment should be performed in the "DECK test mode".
   To engage the DECK test mode, connect the AC power cord to the AC outlet while pressing the "TAPE-II" and "▶ (F)" buttons together.
   When the "DECK test mode" is engaged, the "DUBX1" indicator on the FL display will light.
2) When performing the tape speed adjustment, observe the following notes.
   - Adjustment should be started more than 30 seconds after the power is switched ON.
   - Adjustment should be made on X2 speed mode first then adjust the normal speed mode.
   - Adjustment should be made in the forward direction.
3) To disengage the "DECK test mode", press the "POWER" button or unplug the AC power cord from the AC outlet.

STEP	ADJUSTMENT
	1. Test tape/input signal 2. Mode 3. Check point, adjustment part 4. Remarks (•) and result (✱)

Adjustment Part

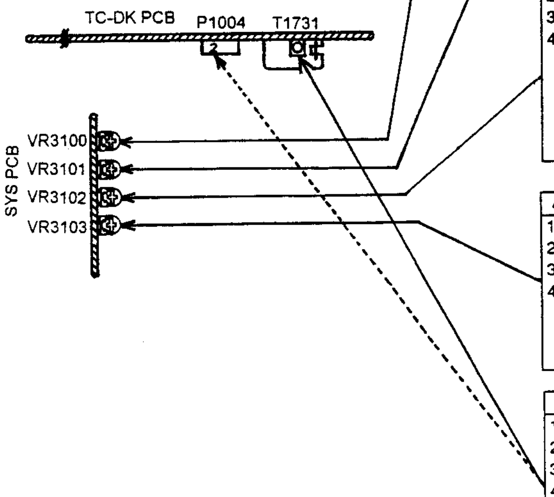
Test Point

1	TAPE-I (X2) TAPE SPEED
	1. 3,150 Hz test tape (TF-110CT) 2. TAPE-I, PLAY 3. LINE OUT, VR3100 4. • Connect a frequency counter to the LINE OUT (L or R) and press the "DUBBING" button to engage double speed. ✱ 6,340 ± 20 Hz

2	TAPE-I NORMAL TAPE SPEED
	1. 3,150 Hz test tape (TF-110CT) 2. TAPE-I, PLAY 3. LINE OUT, VR3101 4. • Connect a frequency counter to the LINE OUT and press the "▶ (F)" button again to resume normal tape speed. ✱ 3,150 ± 10 Hz

3	TAPE-II (X2) TAPE SPEED
	1. 3,150 Hz test tape (TF-110CT) 2. TAPE-II, PLAY 3. LINE OUT, VR3102 4. • Press the "TAPE-II" button and play back the test tape. • Connect a frequency counter to the LINE OUT and press the "DUBBING" button to engage double speed. ✱ 6,320 ± 20 Hz

4	TAPE-II NORMAL TAPE SPEED
	1. 3,150 Hz test tape (TF-110CT) 2. TAPE-II, PLAY 3. LINE OUT, VR3103 4. • Connect a frequency counter to the LINE OUT and press the "▶ (F)" button again to resume normal tape speed. ✱ 3,140 ± 10 Hz



5	BIAS OSC FREQUENCY
	1. CrO2 type blank tape 2. TAPE-II, REC 3. P1004 ② pin, T1731 4. • Connect a frequency counter between P1004 pin and GND. (10 : 1 probe should be used to avoid affecting the measurement.) • Start a recording (press the "REC" button then press the "▶" button). The "AUX" source indicator appears automatically. ✱ 100.0 ± 0.2 kHz

5-2. CD PLAYER SECTION

TEST MODE FOR CD PLAYER'S OPERATION

Some adjustments of the CD PLAYER section are automatically carried out by the micro computer.

If the CD player section is defective and it is necessary to partially check the operation, "CD TEST" mode can be used while repairing.

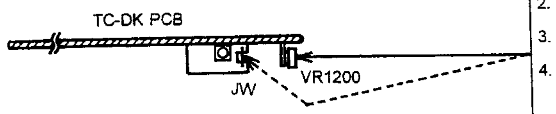
Engaging the "CD TEST" MODE

While pressing and holding both the "CD1" and "◀◀(F)" buttons, plug in the AC power cord to the AC outlet.

Note :

- During "CD TEST" mode, only the DISC"1" ▲ open/close button can be used for loading. So, place a disc on "TRAY 1".
- Proceed testing by pressing the "CD1" button once for each testing step.
- To disengage the "CD TEST" mode, press the "POWER ON/STANDBY" button or disconnect the AC power cord from the AC outlet.

DISPLAY	FUNCTION
T0 (TEST-0)	Initial condition of the "CD TEST" mode.
T1 (TEST-1)	Perform "focus search".
T2 (TEST-2)	Turn on the "focus servo".
T3 (TEST-3)	Mode of the "E-F balance" adjustment.
T4 (TEST-4)	E-F balance adjustment is carried out automatically and its data value is displayed on the FLD.
T5 (TEST-5)	Mode of the "Tracking gain" adjustment.
T6 (TEST-6)	Tracking gain adjustment is carried out automatically and its data value is displayed on the FLD.
T7 (TEST-7)	Normal playback mode is engaged.



1	FOCUS OFFSET
	1. Test disc (SONY TYPE-III) 2. Play back 3. JW and VR1200 4. Connect the hot side probe of an AC milivoltmeter to JW on the BIAS OSC PCB and GND side probe to the chassis. Adjust the VR1200 on the TC-DK PCB until indication of the AC milivoltmeter is maximum.

VI. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list the part No., Model No. and the description of each part. Otherwise, the nondelivery of the part or the delivery of a wrong part may result.
2. Please make sure that part No. is correct when ordering. If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in parts list of preliminary service manual may have been the subject of changes, please use this parts list for all future reference.

[NOTE]

1. This parts list lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts list shows those parts in the parts list which are considered particularly important for service.
3. Parts not shown in the parts list and "Common List for Service Parts" will not in principle be supplied.

WARNING

⚠ (＊) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVEERTISSEMENT

⚠ (＊) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ POUR MAINTENIR LE DEGRÉDE SÉCURITÉDE L'APPAREIL, NE REMPLACER QUE DES PIÉCES RECOMMANDEES PAR LÉ FABRICANT.

1. REMOTE P.C. BOARD

REF. NO.	PARTS No.	DESCRIPTION
CF001	007-300455-46	RESONATOR CRK455 455KHz
IC001	033-806122-13	REMOTE TRANSMITTER UPD6122G-001
LED001	130-670303-00	INFRA RED EMITINT DIODE EL-1L1
PCB	090-010302-04	REMOTE BOARD T=1.6mm 94HB(46X119mm)
Q001	031-278050-03	TRANSISTOR NPN KTC8050C
D001-004	030-134148-00H	D SILICON IN4148
	210-010301-01S	REMOTE BATTERY COVER

2. SYS CON P.C. BOARD

REF. NO	PARTS No.	DESCRIPTION
D3001-3015/3080-3087 D3102-3112/3121-3124	030-320131-01H	D SILICON H 1SS131T T52
D3016/3017/3120(for AC-620)	030-320131-01H	D SILICON H 1SS131T T52
D3113(AC-420/620 S1 AC-425K/625K Y7)	030-320131-01H	D SILICON H 1SS131T T52
D3114/3117(for AC-425/625K)	030-320131-01H	D SILICON H 1SS131T T52
D3115(for AC-420/620 S1)	030-320131-01H	D SILICON H 1SS131T T52
D3116(for AC-423/623RE1)	030-320131-01H	D SILICON H 1SS131T T52
D3119(AC-420/620 E1/E2/E3/B1/RE1)	030-320131-01H	D SILICON H 1SS131T T52
D3027-3031/3037/3038/3040-3044/3052/ D3053/3055/3056	030-560034-10	D LED MYB34C YELLOW
D3026-3029/3036/3039/3042/3051/3054 D3200-3211	030-540034-04	D LED MGB34D GREEN
D3020/3024/3025/3032-3035/3045-3049	030-560031-00	D LED MYB31CA YELLOW
D3021-3023	030-510031-00	D LED MSB31TA RED
D3301/3302/3305-3307 (for AC-620/623R/625K)	030-540034-04	D LED MGB34D GREEN
D3303/3304(for AC-620/623R/625K)	030-560034-10	D LED MYB34C YELLOW
IC3001	034-B01901-12	IC M38197MA-173FP TX3-SYS74-1
IC3002	033-509121-29	IC PST-9121 T05
IC3003	033-002401-42	IC XL24C01AP
IC3004	033-202011-14	IC TA2011S
IC3005-3007/3200	034-304094-18	IC BU4094BCF
IC3301(for AC-620/623R/625K)	034-304094-18	IC BU4094BCF
IC3100	033-304094-18A	IC BU4094BC
IC3101(for AC-423/623R)	034-106579-33	IC SAA6579T-T
IC3102(for AC-423/623R)	034-307073-16	IC LC7073M
IN3001	035-131610-00	IND FL SVA-16MM1D
J 3401	061-121406-00	PHONE J HSJ1406-01-010 3.5
J 3402(for AC-425/625K)	061-121406-00	PHONE J HSJ1406-01-010 3.5
J 3003/3033	060-406123-99	SOCKET 00 6216 006 000 6P
J 3022	060-423124-99	SOCKET 00 6216 023 100 23P
J3906-3907	060-615125-07	SOCKET 15FE-BT-VK-N 15P
P 3301(AC-420/423R/425K)	060-103204-07	PLUG S3B-PH-K WHT 3P
P 3301A(AC-620/623R/625K)	060-108204-07	PLUG S8B-PH-K WHT 8P
P 3011	060-422124-99	PLUG TKC-V22P-A1 22P
PH3001	036-600446-01	DETECTOR SPS-446-1
SW3001	040-002410-20	SW ROTARY EC16B24304
SW3002	046-080001-00	SW PUSH VPS-800
TR3003-3005/3125-3126	031-440144-05V	DTR DTC144ES(47-47) T05
TR3101/3103/3113-3120/3122-3123	031-211048-25V	TR 2SA1048 Y,GR T05
TR3100/3102/3104-3106	031-224682-00V	TR 2SC4682
TR3111(for AC-423RE1/623RE1)	031-211048-25V	TR 2SA1048 Y,GR T05
TR3112(for AC-423RE1/623RE1)	031-440144-05V	DTR DTC144ES(47-47) T05
TS3001-3004/3011-3301	046-110201-00	SW TACT 1.T-1102A 160GM
TS3005/3009	046-110201-00	SW TACT 1.T-1102A 160GM
VR3001	011-202298-00	VR ROTARY RK11K1140 L17.5 B202
VR3101/3103	112-102311-05	R S-FIX V T05 EVND CAA 30.10W 102
VR3100/3102	112-222311-05	R S-FIX V T05 EVND CAA 30.10W 222

W 3001(AC-420/423R/425K)	063-552701-03	WA PH-SAN L270 3P
W 3001A(AC-620/623R/625K)	063-552701-03	WA PH-SAN L270 3P
W 3007	077-622107-16	WF 2468#26 P2.0 C09 L100 16P
W 3008	077-622107-15	WF 2468#26 P2.0 C09 L100 15P
W 3011	077-622107-05	WF 2468#26 P2.0 C09 L100 5P
W 3401	078-125021-00	WA EARTH LUG L=200
X 3001	007-208000-06	OSC CE CST8.00MTW 8.000MHZ
X 3002	037-032768-10M	OSC X'TAL C-002RX 32.768KHZ
X 3100(for AC-423/623R)	007-204000-06	OSC CE CST4.00MGW 4.000MHZ
X 3101(for AC-423/623R)	037-004332-10Z	OSC X'TAL HC-49/U-S 4.33200MHZ

3. MAIN P.C. BOARD

REF. NO.	PARTS No.	DESCRIPTION
D 001(AC-620/623R/625K)	⚠ 030-310040-02	D SILICON DBF40C 200/4.0A
D 002(AC-620/623R/625K)	⚠ 030-310040-02	D SILICON DBF40C 200/4.0A
D 003-004/025(AC-620/623R/625K)	030-410056-30H	D ZENER MTZJ5.6C T52
D 005-008(AC-620/623R/625K)	⚠ 030-310152-06	D SILICON RL152M11S15 100/1.5A
D 006-009(AC-420/423R/425K)	⚠ 030-310152-06	D SILICON RL152M11S15 100/1.5A
D 021/023/081/086/087/	030-314002-10H	D SILICON 1N4002-F T52 100/1A
D 231/232(AC-420/423R/425K)		
D 021/023/081-083/141(AC-620/623R/625K)	030-314002-10H	D SILICON 1N4002-F T52 100/1A
D 001/022/024/042/044/046/083/	030-320131-01H	D SILICON H 1SS131T T52
D 121-124/141-143/221/724		
(AC-420/423R/425K)		
D 022/024/041-042/047/130-131/135-136	030-320131-01H	D SILICON H 1SS131T T52
D 133/142/153-154/156-157		
D 322/724(AC-620/623R/625K)		
D 025/063/066/145/721-723/	030-410062-10H	D ZENER MTZJ6.2A T52
D 751-753(AC-420/423R/425K)		
D 043/062/721-723(AC-620/623R/625K)	030-410062-10H	D ZENER MTZJ6.2A T52
D 041	030-410075-10H	D ZENER MTZJ7.5C T52
D 044/151-152(AC-620/623R/625K)	030-410075-10H	D ZENER MTZJ7.5C T52
D 004/005/043/085/144	030-410051-20H	D ZENER MTZJ5.1B T52
(AC-420/423R/425K)		
D 045(AC-620/623R/625K)	030-410051-20H	D ZENER MTZJ5.1B T52
D 046(AC-620/623R/625K)	030-410015-03H	D ZENER MTZJ15B T52
D 084	030-410330-00H	D ZENER MTZJ33B T52
D 085(AC-620/623R/625K)	030-410056-20H	D ZENER MTZJ5.6A T52
D 132/134(AC-620/623R/625K)	030-410220-00H	D ZENER MTZJ22D T52
D 155(AC-620/623R/625K)	030-410051-10H	D ZENER MTZJ5.1A T52
D 531-533/551-554(for AC-625K)	030-320131-01H	D SILICON H 1SS131T T52
D 551-554(for AC-425K)	030-320131-01H	D SILICON H 1SS131T T52
F1(for AC-420/423R/425K)	⚠ 082-221600-06	FUSE TIME 218 250V 1.6A
F2(for AC-425K)	⚠ 082-221600-06	FUSE TIME 218 250V 1.6A
F1(for AC-620/623R/625K)	⚠ 082-222000-06	FUSE TIME 218 250V 2.00A
F2(for AC-625K)	⚠ 082-222000-06	FUSE TIME 218 250V 2.00A
F3(for AC-620/623R/625K)	⚠ 082-225000-06	FUSE TIME 218 250V 5.00A
F4(for AC-620/623R/625K)	⚠ 082-225000-06	FUSE TIME 218 250V 5.00A
IC 021	033-507805-00B	IC ML7805FA 5V/1A
IC 201(AC-420/423R/425K)	030-404142-16	IC STK4142-2
IC 202/203/204(AC-620/623R/625K)	033-218751-38	IC SI18751
IC 501	033-K65843-12	IC M65843AFP
IC 581	033-904558-30A	IC NJM4558L
IC 602(for AC-620/623R/625K)	034-K02177-74	IC NJM2177AFB3
IC 701	034-262422-12	IC M62422FP
IC 751/761 (for AC-620/623R/625K)	033-209412-14	IC TC9412P
IC 761 (for AC-420/423R/425K)	033-209260-14	IC TC9260P
IC 101(for AC-420/423R/425K)	033-304094-18A	IC BU4094BC
IC 801	033-304094-18A	IC BU4094BC
IC 802 (for AC-620/623R/625K)	033-304094-18A	IC BU4094BC
J 011	060-422122-99	SOCKET TKC-V22X-A1 22P
J 201	061-123000-00	PHONE J HSJ3000-01-010 3.5
J 301(only for AC-620/623R/625K)	061-780243-00	PIN J HSP-243V-06 3P
L 201/251(AC-420/423R/425K)	004-285103-08	COIL 202AK018K COILS
L 281(AC-420/423R)	0844-070410-00	COIL BALUM OPW/S-8-14-5H2
L 202(for 620/623R)	084-070410-00	COIL BALUM OPW/5-8-14-5H2
L 203(for AC-620/623R)	084-070410-00	COIL BALUM OPW 15-8-14-5H2
L 801	002-300002-09	COIL LF LF-4D-102 102UH
P 006(for AC-420/423R/425K)	060-112204-07	PLUG S12B-PH-K WHT 12P
P 006(for AC-620/623R/625K)	060-116204-07	PLUG S16B-PH-K WHT 16P
P 012(AC-420/423R/425K)	060-102045-20	PLUG B2P-3-VH P7.92 2P
P 012(for AC-620/623R/625K)	060-107204-07	PLUG S7B-PH-KWHT 7P
P 013(for AC-420/423R/425K)	060-403001-17	PLUG RB-115-3P 3P
P 013(for AC-620/623R/625K)	060-107045-20	PLUG PS2438-7 7P
P 014(AC-420/423R/425K)	060-104205-27	PLUG B4B-PH-K WHT 4P
P 801(AC-620/623R/625K)	060-102045-20	PLUG B2P-3-VH P7.92 2P
P 902(AC-420/423R/425K)	060-403001-17	PLUG RTB-1.5-SP 3P
R 004-005/043	⚠ 013-478205-75	R OMF H S10FLR ERG12SP1/2WR47J
R 021/103/106/109/112	⚠ 013-109205-75	R OMF H S10FLR ERG12SP1/2W1R0J
R 080(AC-620/623R/625K)	⚠ 013-109205-75	R OMF H S10FLR ERG12SP1/2W1R0J
R 081(AC-420/423R/425K)	⚠ 013-478205-75	R OMF H S10FLR ERG12SP1/2WR47J
R 047-048	⚠ 013-221205-75	R OMF H S10FLR ERG12SP1/2W221J
R 060-063(AC-620/623R/625K)	⚠ 013-392205-75	R OMF H S10FLR ERG12SP1/2W392J
R 061/062-064(AC-420/423R/425K)	⚠ 013-102205-2A	R OMF H S10FLR ERG12SP1/2W102J
R 132/135-136/141(AC-620/623R/625K)	⚠ 013-151205-75	R OMF H S10FLR ERG12SP1/2W151J
R 137(AC-620/623R/625K)	⚠ 013-478205-75	R OMF H S10FLR ERG12SP1/2W562J
R 213/263/233/283	⚠ 013-479305-75	R OMF H S12 FLR ERG1SP 1W 4R7J
(for AC-620/623R/625K)		
R 209/210/259/260(AC-420/423R/425K)	013-478205-075	R OEM H SLOFER ERG15P 1W 100J
RL001	⚠ 066-110212-04	RELAY POW OSA-SS 212DM5 TV-3
TM 201	061-780401-00	TERMINAL PUSH CJ-9007-060 4P
TR 022/024/026/043	031-440114-05V	DTR DTC114ES(10-10) T05
TR 131(AC-620/623R/625K)	031-440114-05V	DTR DTC114ES(10-10) T05
TR 221(AC-420/423R/425K)	031-440114-05V	DTR DTC114ES(10-10) T05
TR 023(for AC-420/423R/425K)	031-221443-00V	TR 2SB1443 TV2
TR 023(for AC-620/623R/625K)	031-220621-00V	TR2SB621 R.S T05
TR 025	031-220621-00V	TR 2SB621 R,S T05
TR 021/041/082/101-104	031-211048-25V	TR 2SA1048 Y,GR T05
TR 130/132(AC-620/623R/625K)	031-211048-25V	TR 2SA1048 Y,GR T05
TR 044/081	031-221375-00	TR 2SB1375
TR 061(AC-620/623R/625K)	031-440114-60V	DTR DTC114TS(10) T05
TR 121-124(AC-420/423R/425K)	031-440114-60V	TR DTC114JS107 T05
TR 134(for AC-610/613R/615K)	031-241785-00	TR 2SD1785
TR 045/135/151/152/154/155/201/251	031-232458-25V	TR 2SC2458 Y,GR T05
TR 221/271(AC-620/623R/625K)		
TR 045/141/201-203/251-253	031-232458-25V	TR 2SC2458 Y,GR T05
(for AC-420/423R/425K)		
TR 137(for AC-620/623R/625K)	031-221258-00	TR 2SB1258
TR 153(for AC-620/623R/625K)	031-430114-19V	DTR DTA114TS(10) T05
TR 158(for AC-620/623R/625K)	031-440114-60V	DTR DTC114TS(10) T05
TR 320/321(for AC-620/623R/625K)	031-430114-05V	DTR DTA114ES(10-10) T05
TR 322(for AC-620/623R/625K)	031-440114-60V	DTR DTC114TS(10) T05
TR 531(for AC-625K)	031-430114-19V	DTR DTA114TS(10) T05
TR 532/533/535/536/539-541	031-440144-60	DTR DTC144TS(47) T05
(for AC-625K)		
TR 534/537/538(for AC-625K)	031-440114-60V	DTR DTC114TS(10) T05
TR 551/552(for AC-425K/625K)	031-440114-60V	DTR DTC114TS(10) T05

TR 601-604(AC-620/623R/625K)	031-430114-19V	DTR DTA114TS(10) T05
W 014(AC-420/423R/425K)	063-552301-04	WA SAN-PH #24 C230 4P
W 801(for AC-425K/625K)	063-502401-11	WA SDN L200 6P
W 913(for AC-620/623R/625K)	063-553201-07	WA SDN-VH #22 L320 7P
X 501(only for AC-620/623R/625K)	007-002000-40	OSC CE CSA2.00MG 2.000MHZ
X 551(for AC-425K/625K)	007-200400-03	OSC CE DCRK400 400.000KHZ

4. TC-DK P.C. BOARD

REF. NO.	PARTS No.	DESCRIPTION
D 1300-1304	030-314002-10H	D SILICON 1N4002-F T52 100/1A
D 1400/1401/1721	030-320131-01H	D SILICON H 1SS131T T52
D 1501	030-410051-10H	D ZENER MTZJ5.1A T52
FL1611/1621/1661/1671	007-100100-09	COIL TUN 1 100Z-121 100.00KHZ
IC1001	033-314052-21	IC MC14052BCP
IC1002/1210	033-904558-30A	IC NJM4558L
IC1003(for AC-620/623R/625K)	033-314053-21	IC MC14053BCP
IC1100	033-601782-64Q	IC CXA1782BQ
IC1200	033-K02508-64	IC CXD2508AQ
IC1300	033-209258-61	IC KA9258D
IC1400	033-206247-18	IC BA6247
IC1601	034-101897-64	IC CXA1897Q
IC1701/1702	034-304094-18	IC BU4094BCF
J 1001(for AC-420/423R/425K)	061-782441-00	PIN J HSP-244V1-05 2P
J 1001A(for AC-620/623R/625K)	061-782441-00	PIN J HSP-244V1-05 2P
J 1002	060-423123-99	SOCKET 00 6216 023 000 23P
J 1100	060-416109-99	SOCKET 00 6232 016 006 16P
L 1501(S1/U5/U8/Y6/Y7/A3)	005-229056-01H	COIL FIX 1 LAP02TA T26 2R2J
L 1721	005-101056-00H	COIL FIX 1 LAP02TA T26 101J
P 1004	060-108205-27	PLUG B8B-PH-K WHT 8P
P 1005	060-103205-27	PLUG B3B-PH-K WHT 3P
P 1200	036-400032-01	SOCKET OPTICAL GPIF32T
P 1400	060-105204-27	PLUG S5B-PH-K WHT 5P
P 1401	060-107204-29	PLUG S7B-PH-K WHT 7P
P 1402	060-106206-27	PLUG S6B-PH-K WHT 6P
T 1731	002-800002-09	COIL OSC 1 C1047
TM1501	061-480312-00	TERMINAL LEVER HSP-312V-02
TR1100/1400/1102/1743	031-211048-25V	TR 2SA1048 Y,GR T05
TR1300/1301	031-221425-00V	TR 2SB1425 S,E T05
TR1302/1601/1621/1651/1671/ TR1741/1721/1742/1751/1752/1756	031-440114-05V	DTR DTC114ES(10-10) T05
TR1401/1501/1611/1612/1661-1662/1701	031-232458-25V	TR 2SC2458 Y,GR T05
TR1502(for AC-423R/623R)	031-250304-06V	TR FET 2SK304 E,F T05
TR1613/1663	031-241012-06V	TR 2SD1012-V-SPA-AC F,G,H T05
TR1010/1060/1631/1685/1642/1101/ TR1035/1681/1692	031-440114-60V	DTR DTC114TS(10) T05
TR1641/1643/1691/1693 (for AC-620/623R/625K)	031-440114-60V	DTR DTC114TS(10) T05
TR1723-1725	031-231815-26V	TR 2SC1815 Y,GR T05
TR1726(E1/E2/B1/RE1/E3)	031-211048-25V	TR 2SA1048 Y,GR T05
TR1731-1732(E1/B1/RE1/E3)	031-232458-25V	TR 2SC2458 Y,GR T05
TU1501(E1/E2/B1/RE1/E3)	103-146601-04	TUNER TFCB3E720A FM/MW/LW
TU1501A(S1/U5/U8/Y6)	103-146401-04	TUNER TFCB1U717A FM/AM
TU1501B(Y7)	103-146101-04	TUNER TFCB1S713A FM/MW/SW
VR1200	112-103311-05	R S-FIX V T05EVNDCAA3 0.10W103
W 1006	063-B01001-12	WA PH L100 12P
W 1400/1401	077-322087-09	WF 2468#26 P2.0 C09 L80 9P
X 1200	037-169344-30J	OSC X'TALHO-49/U16934.400KHz
W900	077-955168-16	CORD FFC P1.0 L150 16P
W1500	072-122008-50	WD 1007#22 CO 180

5. P.C. BOARD BLOCK

REF. NO.	PARTS No.	DESCRIPTION
1-a(AC-420/423R)	771-AC42001-01	MAIN P.C. BOARD
1-b(AC-425K)	771-AC42001-46	MAIN P.C. BOARD
1-c(AC-420/423R)	771-AC42001-02	PRI. P.C. BOARD
1-d(AC-425K)	771-AC42001-47	PRI. P.C. BOARD
1-e(AC-420/423R/425K)	771-AC42001-03	SEC. P.C. BOARD
2-a(AC-420 B1/E1/E3)	771-AC42001-04	TC-TU/CD/DK P.C. BOARD
2-b((AC-420/425K)	771-AC42001-27	TC-TU/CD/DK P.C. BOARD
2-c(AC-423R)	771-AC42001-38	TC-TU/CD/DK P.C. BOARD
2-d(AC-425K Y7)	771-AC42001-82	TC-TU/CD/DK P.C. BOARD
2-e((AC-420/423R)	771-AC42001-05	TC-OSC P.C. BOARD
2-f(AC-420/425K)	771-AC42001-28	TC-OSC P.C. BOARD
2-g(AC-420/423R/425K)	771-AC42001-06	TC-RELAY P.C. BOARD
3-a(AC-420/423R/425K)	771-AC42001-07	SYS-SYS FLD P.C. BOARD
3-b(AC-420 B1/E1/E3)	771-AC42001-08	SYS-MECH CON P.C. BOARD
3-c(AC-420 S1)	771-AC42001-31	SYS-MECH CON P.C. BOARD
3-d(AC-423R)	771-AC42001-42	SYS-MECH CON P.C. BOARD
3-e(AC-425K U5/U8/Y6)	771-AC42001-53	SYS-MECH CON P.C BOARD
3-f(AC-420/425R/425K)	771-AC42001-09	SYS-MECH CON P.C BOARD
3-g(AC-420/423R/425K)	771-AC42001-10	SYS-MECH CON P.C BOARD
3-h(AC-420/423R)	771-AC42001-11	SYS-MIC JACK P.C. BOARD
3-i(AC-425K)	771-AC42001-56	SYS-MIC JACK P.C. BOARD
4a(AC-420)	790-010301-01	REMOTE P.C. BOARD
4b(AC-620)	790-010302-01	REMOTE P.C. BOARD
5-a(AC-620/623R)	771-AC62001-01	MAIN P.C. BOARD
5-b(AC-625K)	771-AC62001-46	MAIN P.C. BOARD
5-c(AC-620/623R)	771-AC62001-02	PRI. P.C. BOARD
5-d(AC-625K)	771-AC62001-47	PRI. P.C. BOARD
5-e(AC-620/623R/625K)	771-AC62001-03	PRI. P.C. BOARD
6-a(AC-620 B1/E1/E3)	771-AC62001-04	TC-TU/CD/DK P.C. BOARD
6-b((AC-620 S1 AC-625K U5/U8/Y6/Y7)	771-AC62001-27	TC-TU/CD/DK P.C. BOARD
6-c(AC-623R)	771-AC62001-38	TC-TU/CD/DK P.C. BOARD
6-d(AC-625K Y7)	771-AC62001-82	TC-TU/CD/DK P.C. BOARD
6-e(AC-620/623R)	771-AC62001-05	TC-OSC P.C. BOARD
6-f (AC-620/623R)	771-AC62001-28	TC-OSC P.C. BOARD
6-g (AC-620/623R/625K)	771-AC62001-06	TC-RELAY P.C. BOARD
7-a(AC-620/623R/625K)	771-AC62001-07	SYS-SYS LED P.C. BOARD
7-b(AC-620 B1/E1/E3)	771-AC62001-08	SYS-MECH CON P.C. BOARD
7-c(AC-620 S1)	771-AC62001-31	SYS-MECH CON P.C. BOARD
7-d(AC-623R)	771-AC62001-42	SYS-MECH CON P.C. BOARD
7-e(AC-625K U5/U8/Y6)	771-AC62001-53	SYS-MECH CON P.C. BOARD
7-f(AC-625K Y7)	771-AC62001-86	SYS-MECH CON P.C. BOARD
7-g(AC-620/623R/625K)	771-AC62001-09	SYS-DECK LED P.C. BOARD
7-h(AC-620/623R/625K)	771-AC62001-10	SYS-CDOPE P.C. BOARD
7-i(AC-620/623R)	771-AC62001-11	SYS-MIC JACK P.C. BOARD
7-j(AC-625K)	771-AC62001-56	SYS-MIC JACK P.C. BOARD

6.YMC03 P.C. BOARD

REF.NO.	PARTS NO.	DESCRIPTION
D4410	030-600048-00	D LED GL4800
TR4410	031-594800-00	TR PHOTO PT4800
J4410	060-405124-99	SOCKET 0062160051005 5P
J4411	060-405123-99	SOCKET 0062160051005 5P
W4401	077-622077-02	WF2468# P I O C09L072P
W4412	063-555301-05	WA SAN-PHL 530 5P

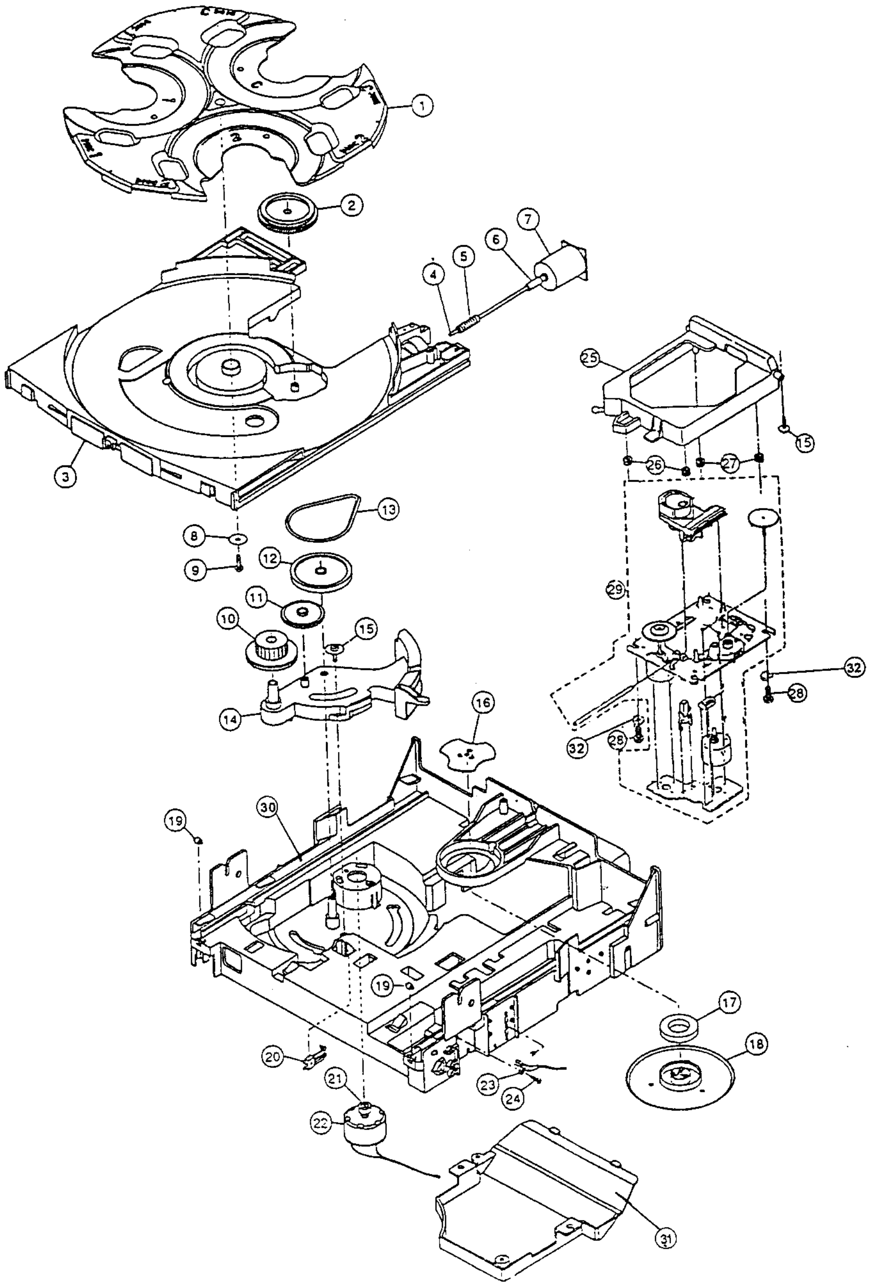
7. ACCESSARY

REF. NO.	PARTS. No.	DESCRIPTION
1	790-010301-01	REMOCON RC-S520
2	790-010302-01	REMOCON RC-S720

8. CD MECHANISM

REF. NO.	PARTS NO.	DESCRIPTION
1	229-385602-01S	HOLDERDISC
2	288-385601-01Z	GEAR WORMWHEEL TABLE
3	220-385602-01S	TRAY LOADING
4	438-385601-01	SHAFT
5	288-385604-01Z	WORM
6	239-385601-01Z	JOINT
7	743-037012-54	MOTOR PF-370CA-15370 12V
8	634-150030-08	PW30X150X080 THK
9	619-300208-00	TAPING SCREW 3X1.25X8mm
10	288-385605-01Z	GEAR LOADING (A)
11	288-385606-01Z	GEAR LOADING(B)
12	288-385602-01Z	PULLEY GEAR
13	334-385604-01	BELT LOADING
14	288-385603-01S	HOLDER GEAR
15	615-300308-00	BW/T 3X8mm
16	428-385603-01	PLATE CLAMPER
17	489-383801-01	MAGNET DISC CLAMP
18	229-385606-01S	CLAMPER
19	259-385602-01Z	ROLLER
20	047-102127-00	LEAF SWITCH LSA-2127E
21	243-385601-01Z	PULLEY
22	743-050009-54	MOTOR RF-500TB-14415 D/V
23	047-101119-01	LEAF SWITCH ISA-1119H
24	610-260208-10	R/T 2.6X8mm
25	220-385601-01S	HOLDER TRAVERSE
26	334-385606-01	INSULATOR
27	334-385606-01	INSULATOR
28	610-200216-00	SELF-SCREW TAPING B/T 2.0X16
29	747-021301-02	MECHA TRAVERSE KSM213CCM
30	220-385603-01R	CHASSIS MAIN
31	219-385601-01Z	CD MECH COVER
32	634-100027-05	METAL WASHER 10X2.7X0.5

CD MECHANISM BLOCK

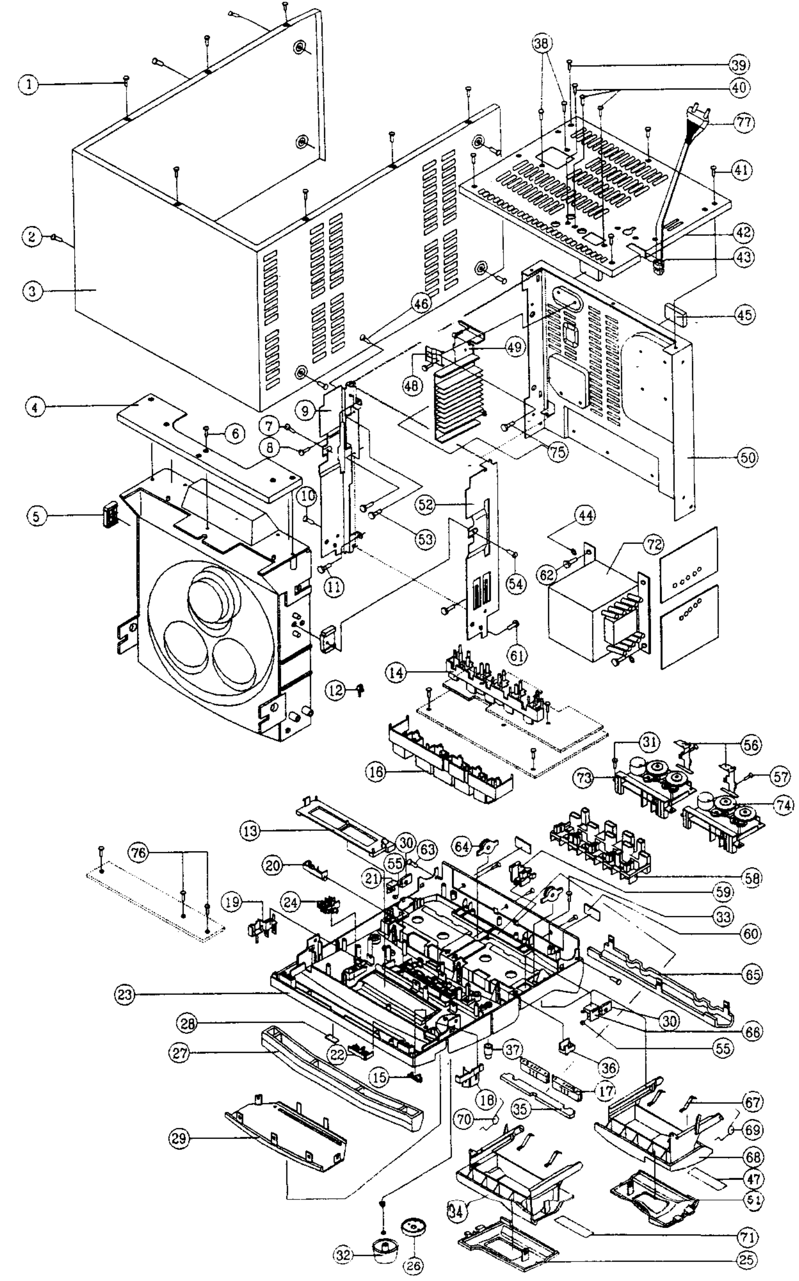


9. AC-420/423R/425K

REF. NO.	PARTS NO.	DESCRIPTION
1	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
2	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
3	402-385002-02	MAIN COVER SILVER
4	495-385017-01	REAR CABINET SUB
5	284-385001-01R	MECH SPACER BLACK HI-PS
6	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
7	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
8	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
9	428-385001-01	CD BRACKET 'L'
10	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
11	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
12	292-AA0302-01S	DOBLY BUTTON
13	229-AA0301-01S	FLD BRACKET HI-PS
14	291-AA0302-01S	FUNCTION BUTTON ABS
15	291-AA0303-01Z	BALANCE BUTTON GRAY
16	291-AA0306-01Z	OP BUTTON (AC-420)
17	250-AA0301-01S	LAMP HOLDER WHITE ABS
18	292-AA0301-01S	REC BUTTON RED (P-96014) ABS
19	291-AA0501-01S	CH BUTTON DARK GREY (P-92008) ABS
20	291-AA0305-01S	POWER BUTTON DARK GREY (P-92008) W/MET GREY(T-96008HB) SP. SILK'S RED(S-88011) LETT. ABS
21	229-AA0314-01Z	LATCH BRACKET (L) POM
22	291-AA0301-01S	DISC BUTTON DARK GREY (P-92008)
23-a(AC-420)	200-AA0311-01R	FRONT CABINET HI-PS
23-b(AC-423R)	200-AA0311-02R	FRONT CABINET HI-PS
23-c(AC-425K)	200-AA0312-01R	FRONT CABINET HI-PS
24	275-AA0301-01S	TIMER BUTTON DARK GREY (P-92008) ABS
25	261-AA0301-01K	CASS DOOR LENS (L) SMOKE
26	273-AA0302-01S	VOLUME RING DARK GREY (P-92008) W/PLATTING ABS
27	219-AA0311-01R	CD DOOR HI-PS
28	286-385001-02S	NAME PLATE 'AKAI'
29	263-AA0301-02K	DISPLAY LENS AS
30	229-385016-01Z	LATCH BRACKET BLACK POM
31	619-300210-00	TAPPING SCREW P TYPE BID H 3X10MM BLACK
32	273-AA0301-01S	VOLUME KNOB ABS
33	619-300210-00	TAPING SCREW P TYPE BID H 3X10MM BLACK
34	211-AA0301-01S	CASS DOOR (L) HI-PS
35	418-AA0301-01	OVERLAY CLEAR SILK'S WHITE(S-96001) COLOR PVC
36	291-AA0304-01S	BASS BUTTON MILKY WHITE (CL-301) ABS
37	273-AA0303-01S	DARK GRAY ABS
38	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
39	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
40	614-300208-00	SELF-TAPPING SCREW B/T 3X8MM BLACK
41	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
42-a(AC-420 E/B)	495-AA0301-01	PANEL REAR
42-b(AC-420 S)	495-AA0301-02	PANEL REAR
42-c(for AC-423R(E))	495-AA0301-03	PANEL REAR
42-d(AC-425K U5,Y6)	495-AA0302-01	PANEL REAR
42-e(AC-425K U8,Y7)	495-AA0302-01	PANEL REAR
43	650-381301-01	CORD BUSHING
44	663-076040-10S	SPRING WASHER 7.6X4X1MM THK SIL CMT
45	207-385101-01Z	REAR FOOT (PLASTIC) BLACK EVA
46	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
47	211-AA0502-02S	CASS DOOR PALTE (R)-B BLACK
48	428-385101-01	HOLDER BRACKET (H)
49	481-385102-01	HEAT SINK (H-2)
50	493-385112-01	METAL BOTTOM CABINET (H) 1MM
51	261-AA0302-01K	CASS DOOR LENS (R) SMOKE
52	428-385002-01	CD BRACKET 'R'
53	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
54	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
55	477-385011-01	LATCH PUSH SPRING
56	483-AA0301-01	SHIELD HEAD
57	604-264501-00A	TAPPING SCREW C TYPE BID 2.6X5MM
58	299-AA0312-01S	LID BRACKET TX-3 WHITE ABS
59	229-AA0303-01S	LID BRACKET BLACK ABS
60	330-385001-01	FRONT CUSHION FOOT
61	619-300208-00	TAPING SCREW P TYPE BID H 3X8MM BLACK
62	602-407008-60A	TAPPING SCREW P TYPE WASHER H 4X8MM
63	619-300212-00	TAPPING SCREW P TYPE BID H 3X12MM
64	703-385002-01	DAMPER DA-60W/W (105) ASSEMBLY
65	263-AA0303-01K	DECK DIR LENS AS
66	229-AA0315-01Z	LATCH BRACKET (R) POM
67	470-AA0321-01	CASS DOOR SPRING SHEET
68	211-AA0302-01S	CASS DOOR (R) HI-PS
69	471-AA0302-01	CASS DOOR SPRING WIRE (R)
70	471-AA0301-01	CASS DOOR SPRING WIRE (L)
71	211-AA0501-02S	CASS DOOR PALTE (L)-B BLACK
72-a(AC-420/423R)	001-86AA03-22	POWER TRANSFORMER C1058-E
72-b(AC-425K)	001-86AA03-B2	POWER TRANSFORNER C1058-U
73	741-495300-09	LOGICAL CONTROL DECK MECHA GT-E5300 (P/B)
74	741-495600-09	LOGICAL CONTROL DECK MECHA GT-E5600(R/P)
75	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
76	619-300210-00	TAPINET SCREW P TYPE BID H 3X10MM BLACK
77-a(except,B1,Y6,S1)	071-669078-00A	AC LINE CORD VDE
77-b(B1,Y6)	071-449078-20	AC LINE CORD BS
77-c(S1)	071-559078-10	AC LINE CORD SAA

FINAL ASSEMBLY BLOCK

MODEL AC-420/423R/425K



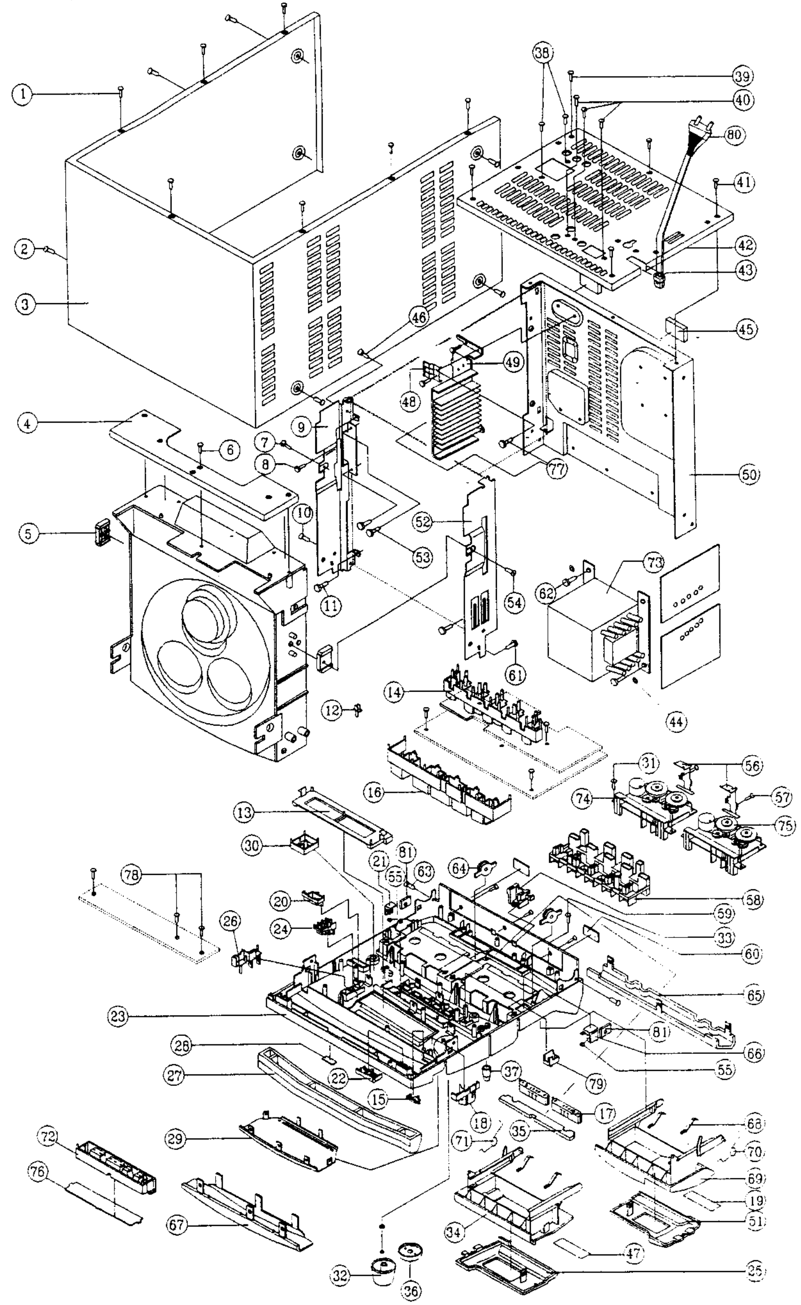
10. AC-620/623R/625K

REF. NO.	PARTS NO.	DESCRIPTION
1	606A301208-00	TAPPING SCREW P TYPE BID H 3X1.25PX8MM
2	606A301208-00	TAPPING SCREW P TYPE BID H 3X1.25PX8MM
3	402-385002-02	MAIN COVER SILVER
4	495-385027-01	REAR CABINET SUB
5	248-385001-01R	MECH SPACER BLACK HI-PS
6	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
7	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
8	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
9	428-385001-01	CD BRACKET 'L'
10	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
11	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
12	292-AA0302-01S	DOBLY BUTTON
13	229-AA0301-01S	FLD BRACKET HI-PS
14	291-AA0302-01S	FUNCTION BUTTON ABS
15	291-AA0303-01S	BALANCE BUTTON GRAY
16	291-AA0306-02Z	OP BUTTON (AC-620)
17	250-AA0301-01S	LAMP HOLDER WHITE ABS
18	292-AA0301-01S	REC BUTTON RED (P-96014) ABS
19	211-AA0502-01S	CASS DOOR PLATE (R)-B BLACK
20	291-AA0305-01S	POWER BUTTON DARK GREY (P-92008) W/MET GREY(T-96008HB) SP. SILK'S RED(S-88011) LETT. ABS
21	229-AA0314-01Z	LATCH BRACKET(L) POM
22	291-AA0301-01S	DISC BUTTON DARK GREY
23-a(AC-620)	200-AA0513-01R	FRONT CABINET HI-PS
23-b(AC-623R)	200-AA0513-02R	FRONT CABINET HI-PS
23-c(AC-625K)	200-AA0514-01R	FRONT CABINET HI-PS
24	275-AA0301-01S	TIMER BUTTON DARK GREY (P-92008) ABS
25	261-AA0301-01K	CASS DOOR LENS (L) SMOKE
26	291-AA0501-01S	CH BUTTON DARK GREY (P-92008) ABS
27	219-AA0311-01R	CD DOOR HI-PS
28	286-385001-02S	NAME PLATE 'AKAI'
29	263-AA0301-02K	DISPLAY LENS AS
30	292-AA0501-01S	ON/OFF BUTTON DARK GREY
31	619-300210-00	TAPPING SCREW P TYPE BID H 3X10MM BLACK
32	273-AA0301-01S	VOLUME KNOB ABS
33	619-300210-00	TAPING SCREW P TYPE BID H 3X10MM BLACK
34	211-AA0301-01S	CASS DOOR (L) HI-PS
35	418-AA0301-01	OVERLAY CLEAR SILK'S WHITE(S-96001) COLOR PVC
36	273-AA0302-01S	VOLUME RING DARK GREY (P-92008) W/PLATTING ABS
37	273-AA0303-01S	MIC KNOB DARK GREY ABS
38	606A301208-00	TAPINET SCREW TYPE BID H 3X1.25PX8MM
39	606A301208-00	TAPINET SCREW P TYPE BID H 3X1.25PX8MM
40	614-300208-00	SELF-TAPPING SCREW B/T 3X8MM BLACK
41	606A301208-00	TAPINET SCREW P TYPE BID H 3X1.25PX3MM
42-a(AC-620 E/B)	495-AA0305-01	PANEL REAR
42-b(AC-620 S)	495-AA0305-02	PANEL REAR
42-c(AC-623R(E))	495-AA0305-03	PANEL REAR
42-d(AC-620 U5,Y6)	495-AA0306-01	PANEL REAR
42-e(AC-620 U8,Y7)	495-AA0306-02	PANEL REAR
43	650-381301-01	CORD BUSHING
44	663-076040-10S	SPRING WASHER 7.6X4X1MM THK SIL CMT
45	330-385002-01	REAR CUSHION FOOT
46	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK

47	211-AA0501-01S	CASS DOOR PLATE (L)-B BLACK
48	428-AA0501-01	HOLDER BKT TR-4
49	481-AA0501-01	HEAT SINK 620
50	493-385021-01	METAL BOTTOM CAB 0.8MM
51	261-AA0302-01K	CASS DOOR LENS (R) SMOKE
52	428-385002-01	CD BRACKET 'R'
53	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
54	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
55	477-385011-01	LATCH PUSH SPRING
56	483-AA0301-01	SHIELD HEAD
57	604-264501-00A	TAPPING SCREW C TYPE BID H 2.6X5MM
58	299-AA0312-01S	LID BRACKET WHITE TX-3 ABS
59	229-AA0303-01S	LID BRACKET BLACK ABS
60	330-385001-01	FRONT CUSHION FOOT
61	619-300208-00	TAPPING SCREW P TYPE BID H 3X8MM BLACK
62	602-407008-60A	TAPPING SCREW P TYPE WASHER H 4X8MM
63	619-300212-00	TAPING SCREW P TYPE BID H 3X12MM BLACK
64	703-385002-01	DAMPER DA-60W/W (105) ASSEMBLY
65	263-AA0303-01K	DECK DIR LENS AS
66	229-AA0315-01Z	LATCH BRACKT(R) POM
67	263-AA0501-02K	PROG DISPLAY LENS GREY SMOKE (P-96011)AS
68	470-AA0321-01	CASS DOOR SPRING SHEET
69	211-AA0302-01S	CASS DOOR (R) HI-PS
70	471-AA0302-01	CASS DOOR SPRING WIRE (R)
71	471-AA0301-01	CASS DOOR SPRING WIRE (L)
72	229-AA0501-01S	PRO LED BRACKET WHITE ABS
73-a(AC-620/623R)	001-873855-42	POWER TRANSF ORMER C1050-E
73-b(AC-625K)	001-873855-02	POWER TRANSFORMER C1050-U
74	741-495300-09	LOGICAL CONTROL DECK MECHA GT-E5300 (P/B)
75	741-495600-09	LOGICAL CONTROL DECK MECHA GT-E5600 (R/P)
76	418-AA0501-01S	OVERLAY CLEAR SILK'S MILKY WHITE COLOR PVC
77	606A301208-00	TAPING SCREW P TYPE BID H 3X1.25PX8MM
78	619-300210-00	TAPPING SCREW P TYPE BID H 3X10MM BLACK
79	291-AA0304-01S	BASS BUTTON MILKY WHITE (CL-301) ABS
80-a(except,B1,Y6,S1)	071-669078-00A	AC LINE CORD VDE
80-b(B1,Y6)	071-449078-20	AC LINE CORD BS
80-c(S1)	071-559078-10	AC LINE CORD SAA
81	229-385016-01Z	LATCH BRACKET BLACK POM

FINAL ASSEMBLY BLOCK

MODEL : AC-620/623R/625K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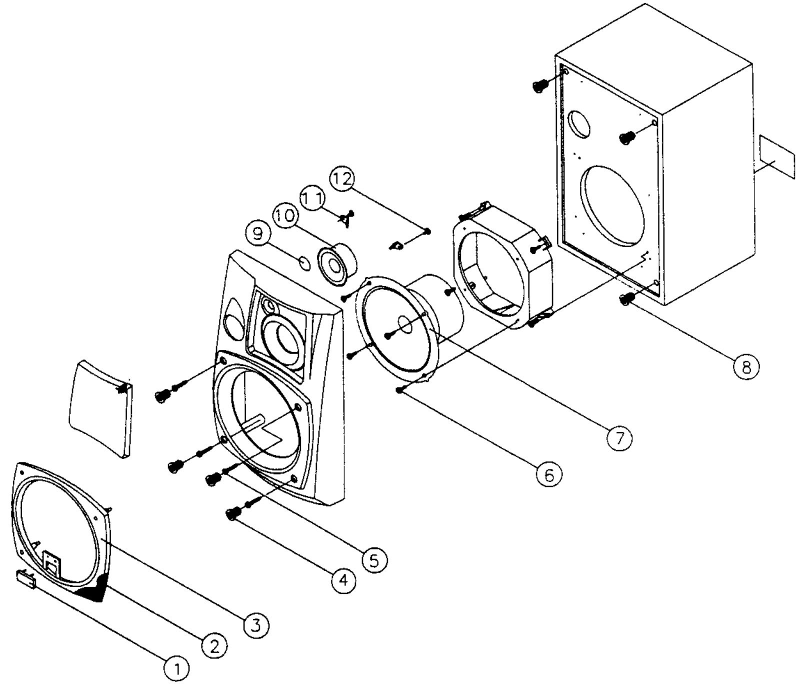
11. SPEAKER SYSTEM (SR-425)

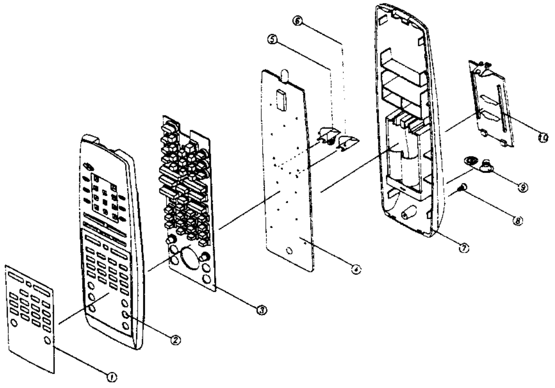


REF. NO	PART NO	DESCRIPTION
1	286-385002-01S	NAME PLATE FOR AKAI
2	583-051501-01	SPEAKER CLOTH
3	239-051501-01R	FRAME NET (R)
4	259-050201-01Z	CUSHION FOR SPEAKER BOX BLK S.B.R
5	610-350220-10	SELF-TAPPING SCREW R/T 3.5X20MM
6	614-400216-30	SELF-TAPPING SCREW R/T 4.0X16MM BLACK
7	066-953254-WT	WOOFER SPEAKER
8	259-381301-01	CUSHION
9	070-100027-02Z	27MM PIEZO
10	066-283220-WT	MIDRANGE SPEAKER
11	462-333202-01	SPEAKER CLIP
12	612-300210-10	SELF-TAPPING SCREW 3X10MM

12. REMOTE EXPLODED DIAGRAM AND PARTS LIST

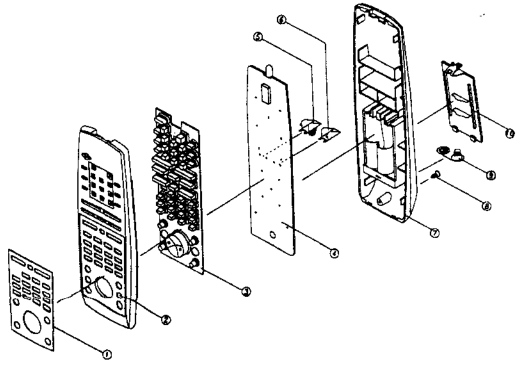
RC-S520

REF. NO	PART NO	DESCRIPTION
*	790-010301-01	REMOTE CONTROL HANDSET RC-S520
1	411-010301-01	REMOTE NAME PLATE
2	201-010302-01S	REMOTE CAB TOP
3	334-010311-01	REMOTE CONTATIVE RUBBER (46 KEYS)
4	090-010302-03	PCB REMOTE BOARD
5	473-010311-01	BATT CONTACT SPRING SHEET-VE
6	472-010311-01	BAT CONTACT PLATE +VE
7	203-010311-01S	REMOTE CABINET BOTTOM
8	610-260206-10	SELF-TAPPING SCREW K/T 2.6X6
9	474-010101-01	BAT CONTACT SPRING WIRE +/-VE
10	210-010301-01S	REMOTE BATTERY COVER



RC-S720

REF. NO	PART NO	DESCRIPTION
*	790-010302-01	REMOTE CONTROL HANDSET RC-S720
1	411-010302-01	REMOTE NAME PLATE
2	201-010301-02S	REMOTE CAB TOP
3	334-010312-01	REMOTE CONTATIVE RUBBER (46 KEYS)
4	090-010302-03	PCB REMOTE BOARD
5	473-010311-01	BATT CONTACT SPRING SHEET-VE
6	472-010311-01	BAT CONTACT PLATE +VE
7	203-010311-01S	REMOTE CABINET BOTTOM
8	610-260206-10	SELF-TAPPING SCREW K/T 2.6X6
9	474-010101-01	BAT CONTACT SPRING WIRE +/-VE
10	210-010301-01S	REMOTE BATTERY COVER



XII. ABBREVIATIONS

TUNER

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	MIcro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultiPleX
ANT	ANTenna	MW	Medium Wave(frequency)
BATT	BATTery	NC	No Connection
BLK	BLocK	NFB	Negative Feed Back
BUFF	BuFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETect(DETector)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFerence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institute of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	Switch: Short Wave(frequency)
LCH	Left CHannel	THD	Total Harmonic Distortion
LED	Light Emitting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave (Frequency)	VR	Variable Resistor
XTAL	Crystal		

COMPACT DISC

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
A-D	Analog to Digital(Converter)	Mb	Mega Bits
ADC	Analog Code Decimal (Converter)	MDA	Motor Drive Amplifier
BCD	Binary Code Decimal	MFM	Modified Frequency Modulation
BPI	Bits Per Inch	MW	Mono-stable Multivibrator
CD	Compact Disc	M2FM	Modified Modified Frequency Modulation
CIRC	Cross Interleaving & Reed Solomon Coding	MOD2	Module 2 (Addition)
		MP	Microprocessor
CLV	Constant Linear Velocity	MSB	Most Significant Bit
CP	Clock Pulses	NA	Numerical Aperture
CRCC	Cyclic Redundancy Check Codes	NRZ	Non Return to Zero
D Level	Decision Level	NRZ-I	Non Return to Zero Inverted
D-A	Digital to Analog(Converter)	P	Parity Data
DAC	Digital to Analog(Converter)	PAM	Pulse Amplitude Modulation
DAD	Digital Audio Disc	PCM	Pulse Code Modulation
DEM	Dynamic Element Matching	PD	Phase Detector
DPD	Differential Phase Detection	PE	Phase Encode
DSV	Digital sum Value	PLL	Phase locked Loop
EFM	Eight to Fourteen Modulation	PNM	Pulse Number Modulation
EX-OR	Exclusive OR	PPM	Pulse Phase Modulation
FCI	Flux Changes per Inch	PWM	Pulse Width Modulation
FIR	Finite Impulse Response	Q	Parity Data
FP	Front Pulse	R,R1,R2,ect.	Data for Right Channel
FPG	Front Pulse Gate	RAM	Random Access Memory
F	Frequency of Sampling	RPG	Rear Pulse Gate
GF	Galois Field	SCOOP	Self Coupled Optical Pick-up
H&V(Parity)	Horizontal & Vertical	S&H	Sample & Hold
IIR	Infinite Impulse Response	S/N	Signal to Noise Ratio
KB	Kilo Bits	SSG	Standard Signal Generator
L,L1,L2,ect.	Data for Left Channel	SYSCON	SYStem CONtrol
LPF	Low Pass Filter		
LSB	Least Significant Bit		

CASSETTE

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	Minute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	MultiPlex
AR	Anti Recording	NC	Not connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEFB	and Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAPM	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	OR	Quick Reverse
CONT	CONTinuance	RCH	Right CHannel
CRLP	Computer Recording Level	REC	RECord (RECording)
	Processing	REV	REVerse
CS	Chip Select	ROT	ROTation
D/A	Digital/Analog	REW	REWind
DC	Direct Current	SEC	SECond
DET	DETector	SELE	SELEctor
DISCRI	DISCRIminator	SENS	SENSitivity
DUB	DUBbing	SEPP	Single Ended Push Pull
EQ	EQualizer	SIG	SIGnal
FF or (F.FWD)	Fast Forward	SPECT	SPECTrum
FLD	FLuorescent Display	STD	STanDard
FREQ	FREQuency	SW	SWitch
FWD	ForWarD	SYSCON	SYStem CONtrol
GND	GrouND	TP	TEST Point
H	High	TRIG	TRIGa
HPF	High Pass Filter	VCA	Voltage Control Attenuator
IND	INDicator	VOL	Volume
IPLS	Instant Program Location System	VOLT	VOLTage
L	Low	VR	Variable Resistor
LCH	Left Channel	XTAL	crysTAL
LEDLight	Emitting Diode	X1	Normal speed
MEMO	MEMOry	X2	Double speed
MICOM	MIcroCOMputer		

AKAI

MODEL AC-420, 423R, 425K
MODEL AC-620, 623R, 625K

SCHEMATIC DIAGRAMS AND PC BOARDS

TABLE OF CONTENTS

I. BLOCK DIAGRAMS

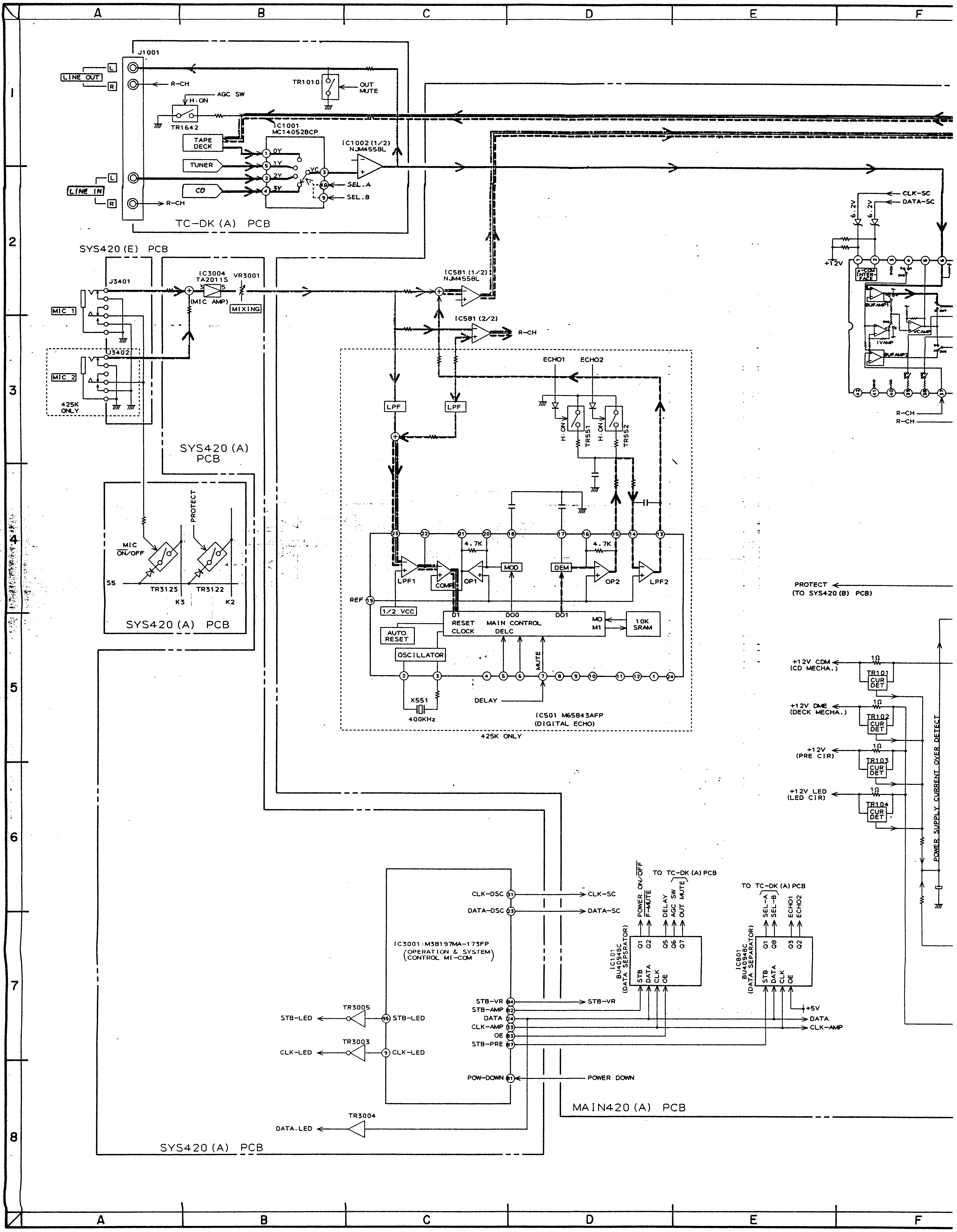
1. MAIN (AC-420, 423R, 425K) 3
2. MAIN (AC-620, 623R, 625K) 4
3. CD 5
4. TUNER & TAPE DECK 6

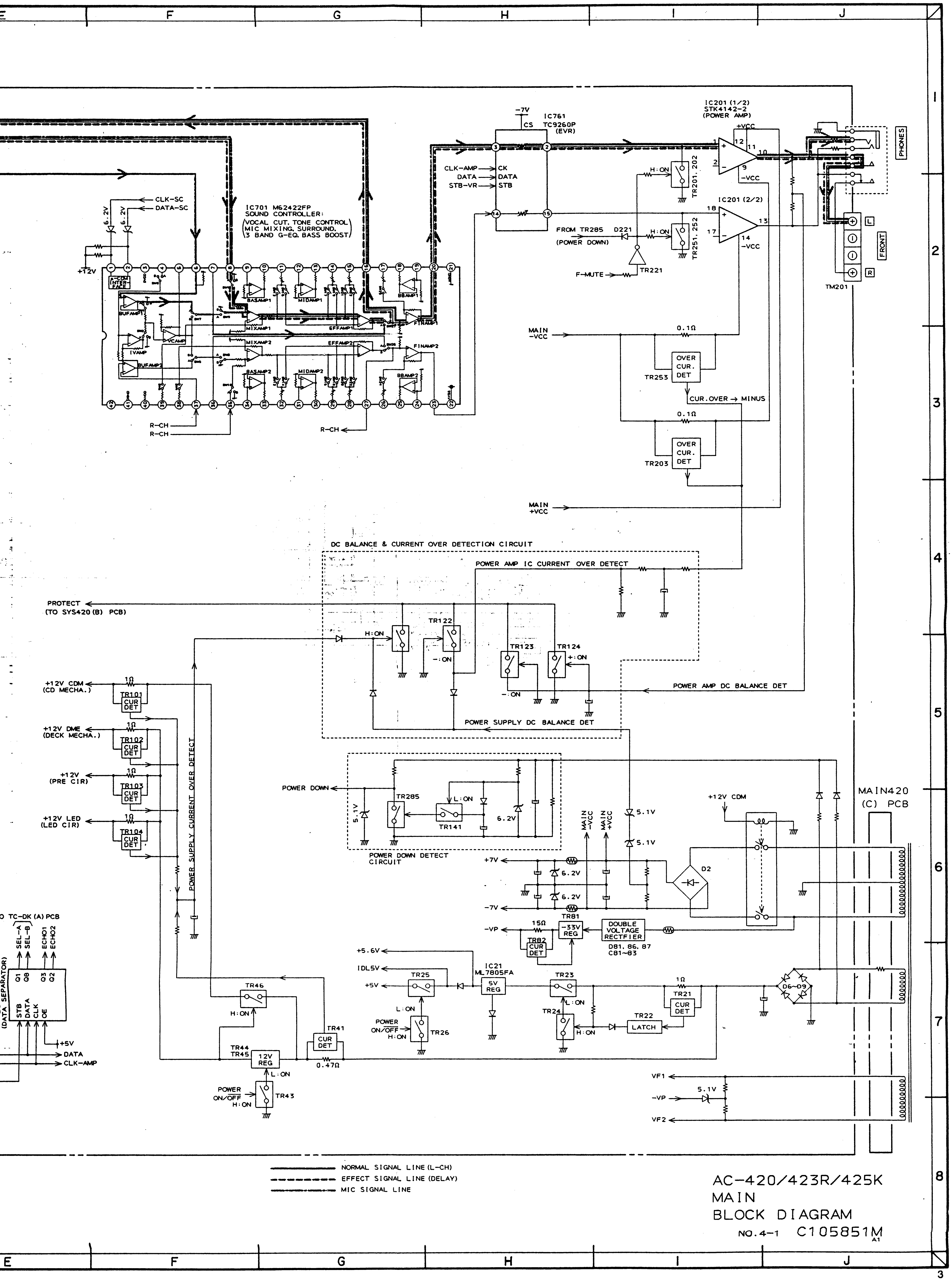
II. SCHEMATIC DIAGRAMS AND PC BOARDS

1. CONNECTION DIAGRAM 8
2. MAIN (AC-420, 423R, 425K) 10
3. MAIN (AC-620, 623R, 625K) 12
4. CD/TAPE DECK/TUNER 14
5. SYSCON/MECHA. DRIVE 16

III. INFORMATION OF ICS 24

Use these schematic diagrams and PC boards together with the provided service manual.


A
B
C
D
E
F
1
2
3
4
5
6
7
8
J1001
LINE OUT
L
R
R-CH
TR1010
OUT MUTE
AGC SW
H:ON
TR1642
IC1001
MC14052BCP
TAPE DECK
TUNER
CD
LINE IN
0Y
1Y
2Y
3Y
YC
SEL.A
SEL.B
IC1002 (1/2)
NJM4558L
TC-DK (A) PCB
SYS420 (E) PCB
J3401
MIC 1
J3402
MIC 2
425K ONLY
IC3004
TA2011S
VR3001
(MIC AMP)
MIXING
SYS420 (A) PCB
IC581 (1/2)
NJM4558L
IC581 (2/2)
R-CH
ECHO1
ECHO2
LPF
LPF
H:ON
TR551
H:ON
TR552
4.7K
4.7K
LPF1
COMP
OP1
MOD
DEM
OP2
LPF2
REF
1/2 VCC
D1
DO0
DO1
RESET
MAIN CONTROL
CLOCK
DELC
MO
M1
10K SRAM
AUTO RESET
OSCILLATOR
MUTE
X551
400KHz
DELAY
IC501 M65843AFP
(DIGITAL ECHO)
425K ONLY
MIC ON/OFF
PROTECT
S5
TR3123
TR3122
K3
K2
SYS420 (A) PCB
6.2V
6.2V
CLK-SC
DATA-SC
+12V
I-CON INTER-FACE
BUFAMP1
VCAMP
IVAMP
BUFAMP2
R-CH
R-CH
PROTECT
(TO SYS420 (B) PCB)
+12V CDM
(CD MECHA.)
1Ω
TR101
CUR DET
+12V DME
(DECK MECHA.)
1Ω
TR102
CUR DET
+12V
(PRE CIR)
1Ω
TR103
CUR DET
+12V LED
(LED CIR)
1Ω
TR104
CUR DET
POWER SUPPLY CURRENT OVER DETECT
CLK-DSC
DATA-DSC
CLK-SC
DATA-SC
IC3001:M38197MA-173FP
(OPERATION & SYSTEM CONTROL MI-COM)
TO TC-DK (A) PCB
POWER ON/OFF
F-MUTE
DELAY
AGC SW
OUT MUTE
IC101
BU4094BC
(DATA SEPSRATOR)
Q1
Q2
Q5
Q6
Q7
STB
DATA
CLK
OE
TO TC-DK (A) PCB
SEL-A
SEL-B
ECHO1
ECHO2
IC801
BU4094BC
(DATA SEPARATOR)
Q1
Q8
Q3
Q2
STB
DATA
CLK
OE
+5V
STB-VR
STB-AMP
DATA
CLK-AMP
OE
STB-PRE
STB-VR
DATA
CLK-AMP
TR3005
STB-LED
STB-LED
TR3003
CLK-LED
CLK-LED
POW-DOWN
POWER DOWN
MAIN420 (A) PCB
TR3004
DATA.LED
SYS420 (A) PCB


E
F
G
H
I
J
1
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7
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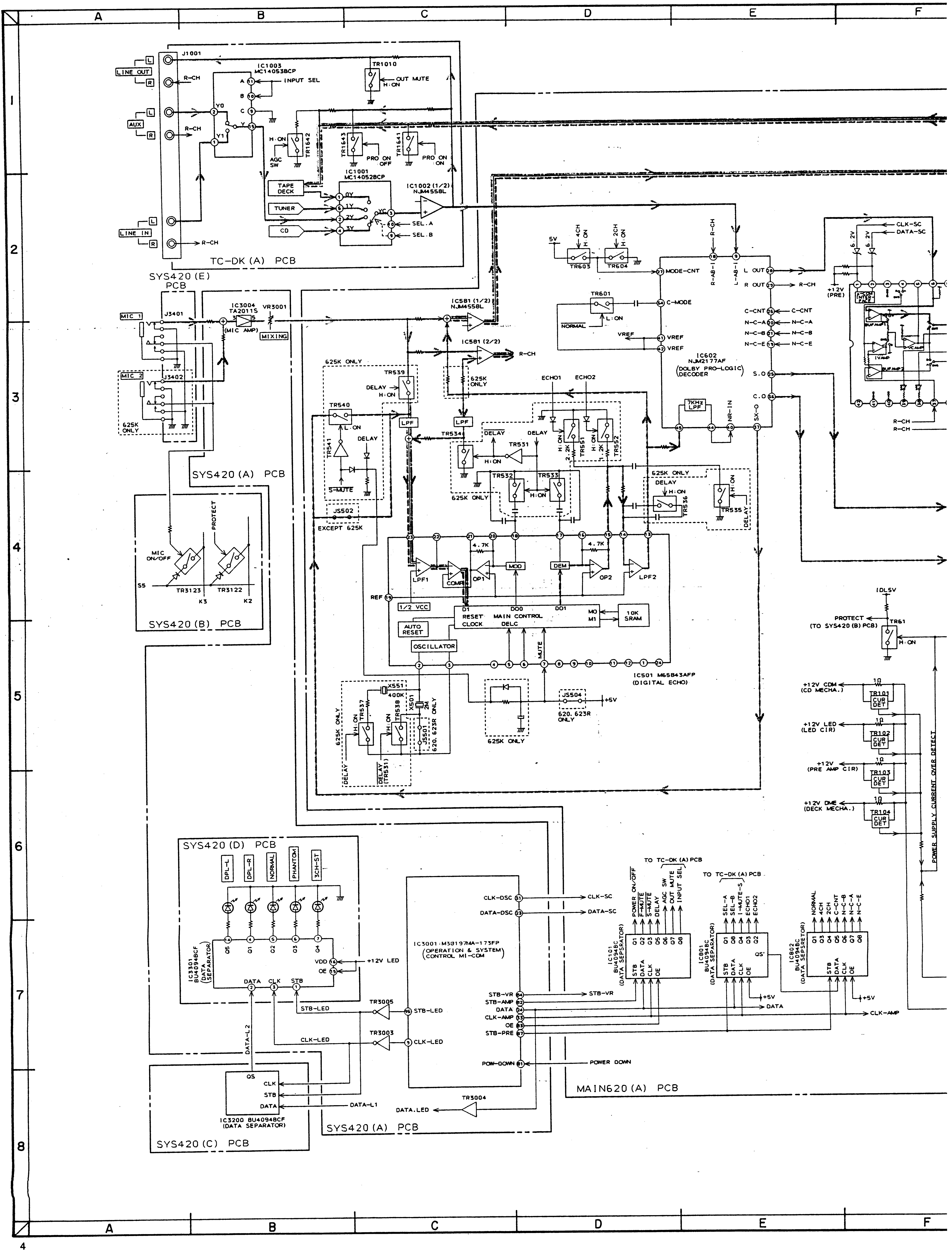
IC201 (1/2)
STK4142-2
(POWER AMP)
+VCC
-VCC
IC201 (2/2)
-7V
CS
IC761
TC9260P
(EVR)
CLK-AMP
DATA
STB-VR
CK
DATA
STB
H:ON
TR201, 202
TR251, 252
FROM TR285
(POWER DOWN)
D221
F-MUTE
TR221
PHONES
FRONT
L
R
TM201
CLK-SC
DATA-SC
6.2V
+12V
IC701 M62422FP
SOUND CONTROLLER:
(VOCAL CUT, TONE CONTROL
MIC MIXING, SURROUND,
3 BAND G-EQ, BASS BOOST)
μ-COM INTERFACE
BUFAMP1
BUFAMP2
IVAMP
VCAMP
BASAMP1
MIDAMP1
BBAMP1
MIXAMP1
EFFAMP1
FINAMP1
MIXAMP2
EFFAMP2
FINAMP2
BASAMP2
MIDAMP2
BBAMP2
R-CH
R-CH
R-CH
MAIN -VCC
0.1Ω
OVER CUR. DET
TR253
CUR.OVER → MINUS
0.1Ω
OVER CUR. DET
TR203
MAIN +VCC
DC BALANCE & CURRENT OVER DETECTION CIRCUIT
POWER AMP IC CURRENT OVER DETECT
PROTECT
(TO SYS420 (B) PCB)
H:ON
TR122
-:ON
TR123
TR124
+:ON
-:ON
POWER AMP DC BALANCE DET
POWER SUPPLY DC BALANCE DET
+12V CDM
(CD MECHA.)
1Ω
TR101
CUR DET
+12V DME
(DECK MECHA.)
1Ω
TR102
CUR DET
+12V
(PRE CIR)
1Ω
TR103
CUR DET
+12V LED
(LED CIR)
1Ω
TR104
CUR DET
POWER SUPPLY CURRENT OVER DETECT
POWER DOWN
5.1V
TR285
L:ON
TR141
6.2V
POWER DOWN DETECT CIRCUIT
MAIN -VCC
MAIN +VCC
5.1V
5.1V
+12V CDM
MAIN420 (C) PCB
+7V
6.2V
6.2V
-7V
D2
-VP
15Ω
TR81
-33V REG
TR82
CUR DET
DOUBLE VOLTAGE RECTFIER
D81, 86, 87
C81~83
+5.6V
IDL5V
+5V
TR25
IC21
ML7805FA
5V REG
TR23
1Ω
TR21
CUR DET
D6~D9
L:ON
POWER ON/OFF
H:ON
TR26
L:ON
TR24
H:ON
TR22
LATCH
TR46
H:ON
TR41
CUR DET
TR44
TR45
12V REG
0.47Ω
L:ON
POWER ON/OFF
H:ON
TR43
VF1
-VP
5.1V
VF2
TO TC-DK (A) PCB
SEL-A
SEL-B
ECHO1
ECHO2
Q1
Q8
Q3
Q2
(DATA SEPARATOR)
STB
DATA
CLK
OE
+5V
DATA
CLK-AMP
NORMAL SIGNAL LINE (L-CH)
EFFECT SIGNAL LINE (DELAY)
MIC SIGNAL LINE

AC-420/423R/425K
MAIN
BLOCK DIAGRAM
NO.4-1 C105851M A1


A
B
C
D
E
F
1
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3
4
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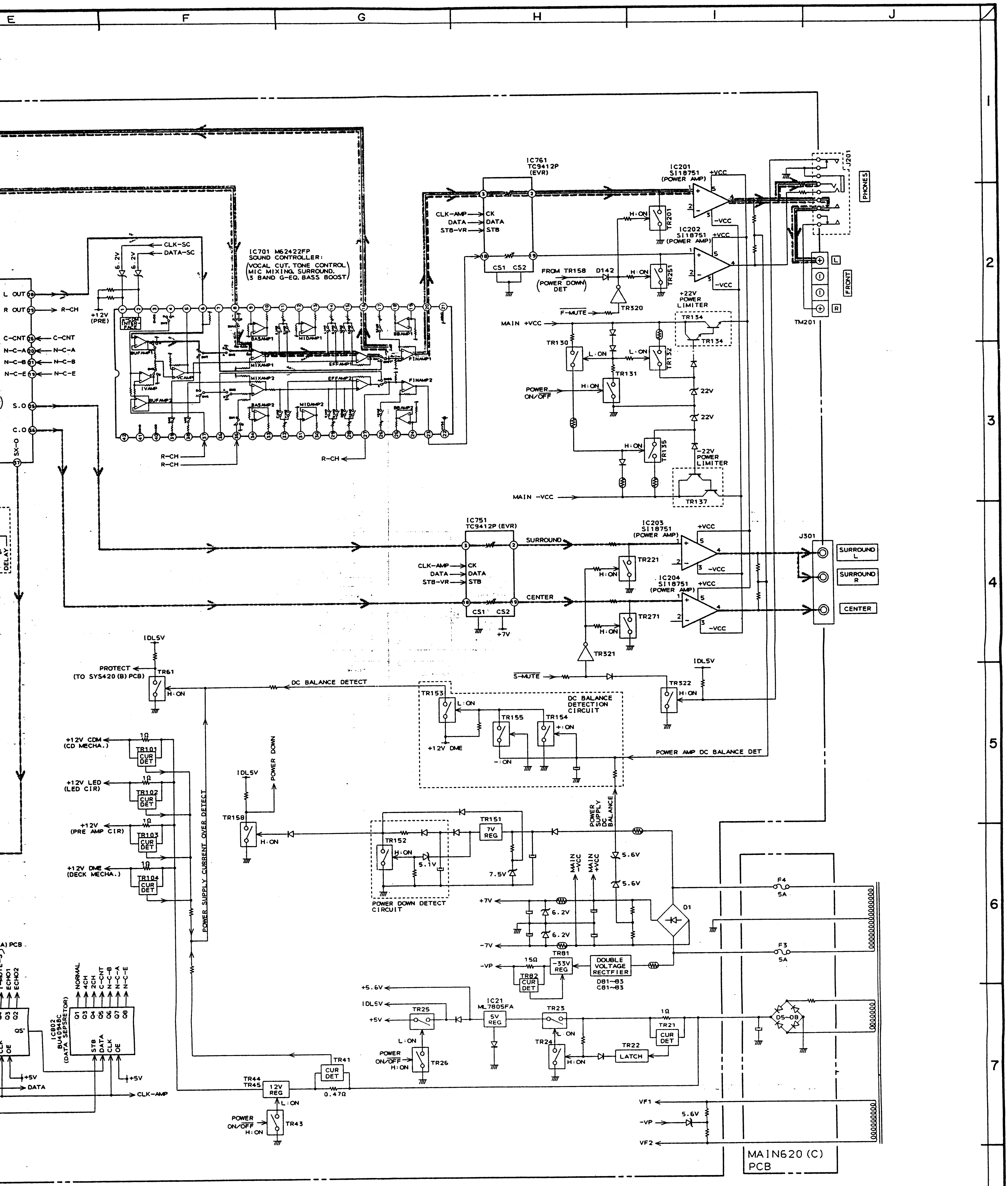
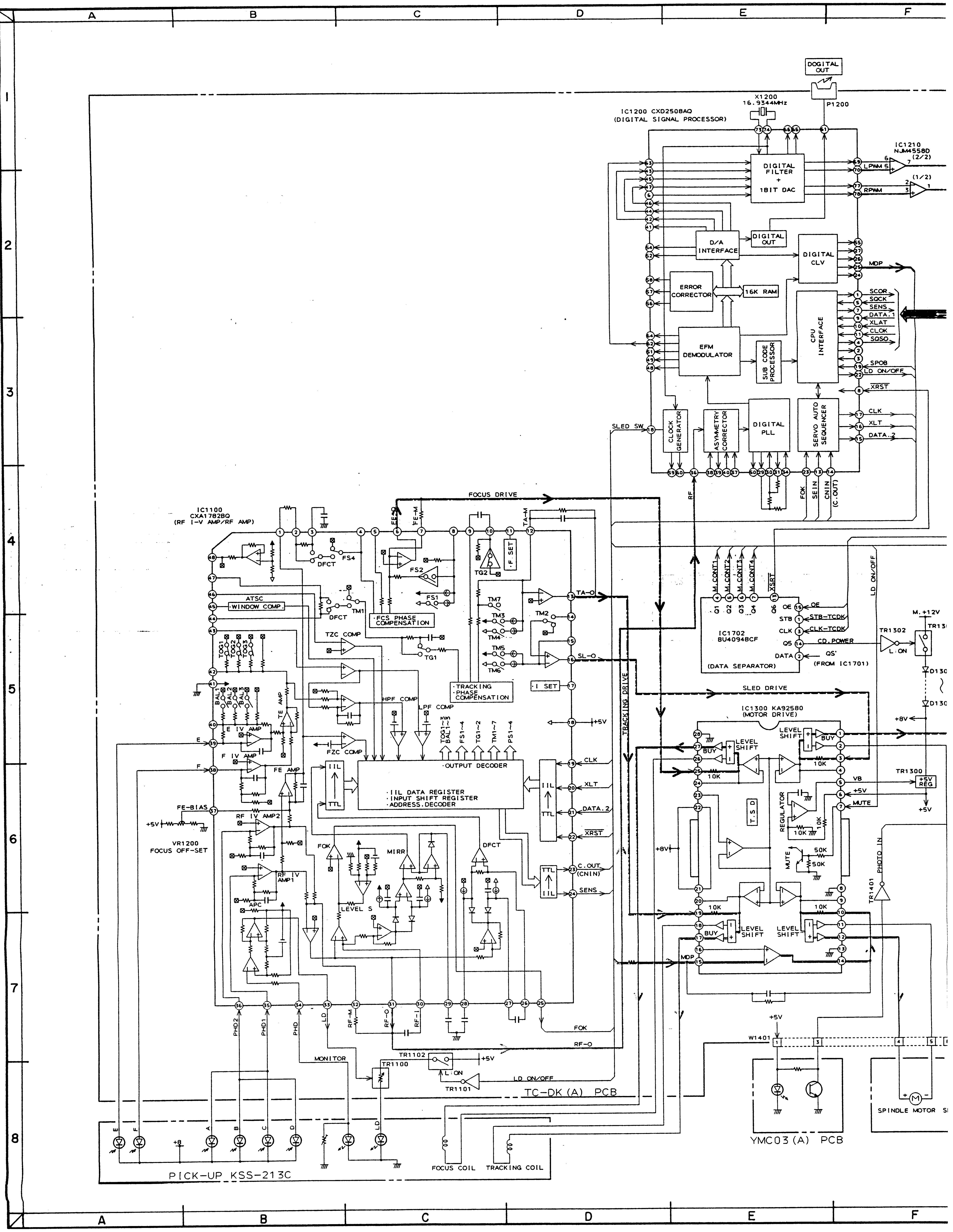
7
8
J1001
LINE OUT
L
R
R-CH
AUX
LINE IN
IC1003
MC14053BCP
INPUT SEL
Y0
Y1
TR1010
OUT MUTE
H:ON
H·ON
AGC SW
TR1642
TR1643
TR1641
PRO ON OFF
PRO ON :ON
IC1001
MC14052BCP
TAPE DECK
TUNER
CD
0Y
1Y
2Y
3Y
YC
SEL.A
SEL.B
IC1002 (1/2)
NJM4558L
TC-DK (A) PCB
SYS420 (E) PCB
MIC 1
MIC 2
J3401
J3402
625K ONLY
IC3004
TA2011S
(MIC AMP)
VR3001
MIXING
SYS420 (A) PCB
IC581 (1/2)
NJM4558L
IC581 (2/2)
R-CH
625K ONLY
TR539
DELAY
H:ON
TR540
L:ON
TR541
S-MUTE
JS502
EXCEPT 625K
LPF
TR534
DELAY
TR531
H:ON
TR532
TR533
625K ONLY
ECHO1
ECHO2
TR551
TR552
2.2K
1.2K
625K ONLY
TR536
TR535
4.7K
LPF1
COMP
OP1
MOD
DEM
OP2
LPF2
REF
1/2 VCC
D1
RESET
MAIN CONTROL
CLOCK
DELC
DO0
DO1
MO
M1
10K SRAM
AUTO RESET
OSCILLATOR
MUTE
IC501 M65843AFP
(DIGITAL ECHO)
X551
400K
X501
2M
TR537
TR538
JS501
620, 623R ONLY
DELAY (TR531)
JS504
+5V
620, 623R ONLY
625K ONLY
MIC ON/OFF
PROTECT
S5
TR3123
TR3122
K3
K2
SYS420 (B) PCB
5V
4CH H:ON
2CH H:ON
TR603
TR604
TR601
NORMAL
L:ON
VREF
MODE-CNT
C-MODE
R-AB-I
L-AB-I
L OUT
R OUT
C-CNT
N-C-A
N-C-B
N-C-E
IC602
NJM2177AF
(DOLBY PRO-LOGIC)
DECODER
S.O
C.O
7KHz LPF
NR-IN
SX-O
CLK-SC
DATA-SC
6.2V
+12V (PRE)
BUF AMP1
VCAMP
BUF AMP2
IVAMP
R-CH
IDL5V
PROTECT
(TO SYS420 (B) PCB)
TR61
H:ON
+12V CDM
(CD MECHA.)
TR101
CUR DET
+12V LED
(LED CIR)
TR102
+12V
(PRE AMP CIR)
TR103
+12V DME
(DECK MECHA.)
TR104
1Ω
POWER SUPPLY CURRENT OVER DETECT
SYS420 (D) PCB
DPL-L
DPL-R
NORMAL
PHANTOM
3CH-ST
IC3301
BU4094BCF
(DATA SEPARATOR)
Q5
Q1
Q2
Q3
Q4
VDD
OE
+12V LED
DATA
CLK
STB
TR3005
STB-LED
TR3003
CLK-LED
DATA-L2
QS
IC3200 BU4094BCF
(DATA SEPARATOR)
DATA-L1
SYS420 (C) PCB
SYS420 (A) PCB
TR3004
DATA.LED
IC3001 M38197M4A-173FP
(OPERATION & SYSTEM CONTROL MI-COM)
CLK-DSC
DATA-DSC
CLK-SC
DATA-SC
STB-VR
STB-AMP
DATA
CLK-AMP
OE
STB-PRE
POW-DOWN
POWER DOWN
MAIN620 (A) PCB
TO TC-DK (A) PCB
POWER ON/OFF
F-MUTE
S-MUTE
DELAY
AGC SW
OUT MUTE
INPUT SEL
IC101
BU4094BC
(DATA SEPARATOR)
IC801
BU4094BC
(DATA SEPARATOR)
SEL-A
SEL-B
I-MUTE-S
ECHO1
ECHO2
QS'
+5V
IC802
BU4094BC
(DATA SEPARATOR)
NORMAL
4CH
2CH
C-CNT
N-C-B
N-C-A
N-C-E
CLK-AMP

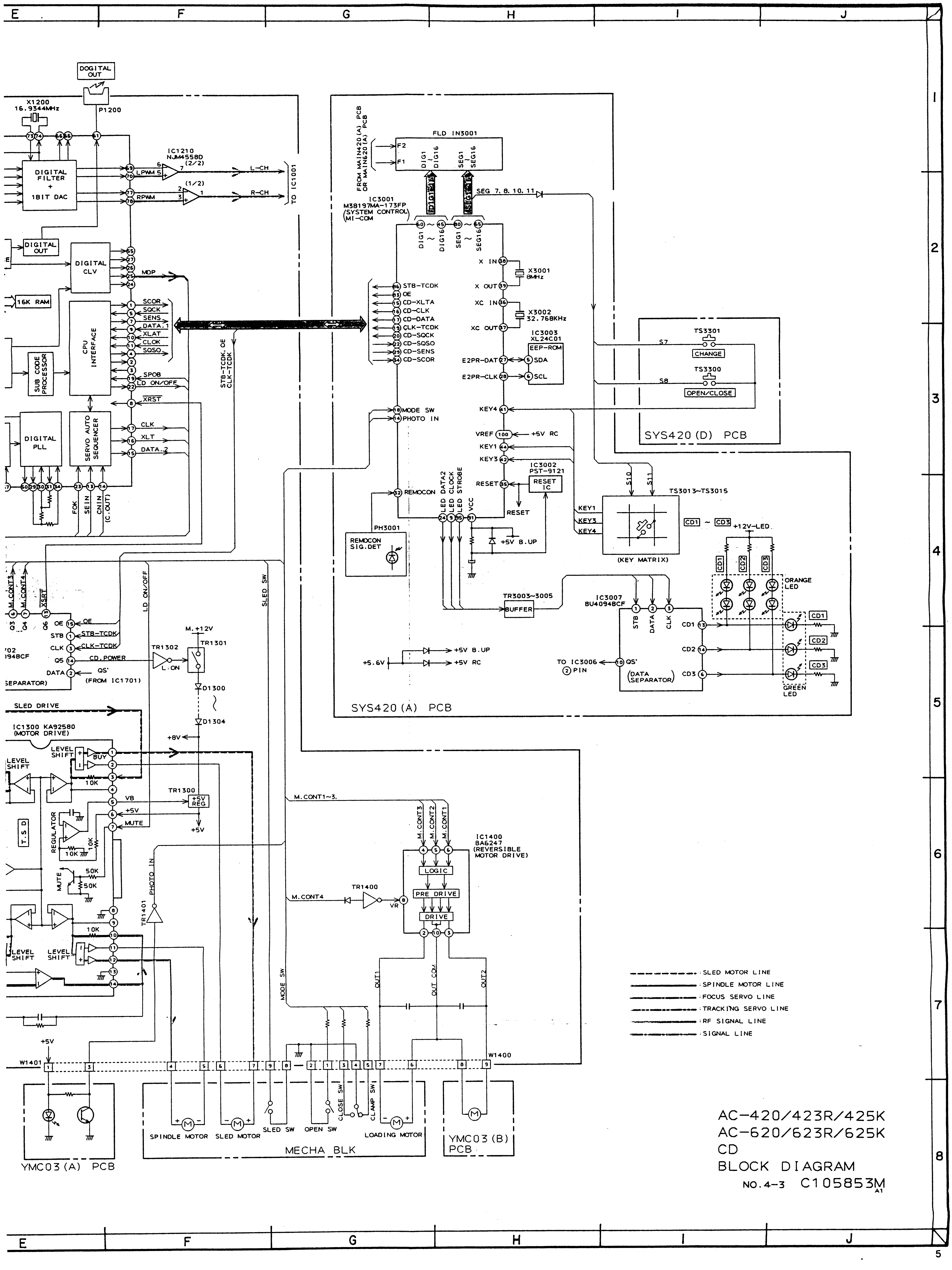

E
F
G
H
I
J
1
2
3
4
5
6
7
8
IC761
TC9412P
(EVR)
CLK-AMP
DATA
STB-VR
CK
DATA
STB
CS1
CS2
IC201
SI18751
(POWER AMP)
+VCC
-VCC
TR201
H:ON
IC202
SI18751
(POWER AMP)
TR251
FROM TR158
(POWER DOWN DET)
D142
F-MUTE
TR320
J201
PHONES
TM201
FRONT
L
R
+22V
POWER
LIMITER
TR134
MAIN +VCC
TR130
L:ON
TR132
TR131
POWER ON/OFF
22V
TR135
-22V
POWER
LIMITER
MAIN -VCC
TR137
CLK-SC
DATA-SC
6.2V
IC701 M62422FP
SOUND CONTROLLER:
(VOCAL CUT, TONE CONTROL, MIC MIXING, SURROUND, 3 BAND G-EQ, BASS BOOST)
+12V
(PRE)
L OUT
R OUT
R-CH
C-CNT
N-C-A
N-C-B
N-C-E
S.O
C.O
SX-O
DELAY
BASAMP1
MIDAMP1
BBAMP1
MIXAMP1
EFFAMP1
FINAMP1
MIXAMP2
EFFAMP2
FINAMP2
BASAMP2
MIDAMP2
BBAMP2
BUFAMP1
BUFAMP2
IVAMP
VCAMP
IC751
TC9412P (EVR)
SURROUND
CENTER
+7V
IC203
SI18751
(POWER AMP)
TR221
IC204
SI18751
(POWER AMP)
TR271
TR321
J301
SURROUND L
SURROUND R
CENTER
IDL5V
PROTECT
(TO SYS420 (B) PCB)
TR61
DC BALANCE DETECT
S-MUTE
TR322
TR153
DC BALANCE
DETECTION
CIRCUIT
TR155
TR154
+:ON
-:ON
+12V DME
POWER AMP DC BALANCE DET
+12V CDM
(CD MECHA.)
TR101
CUR DET
1Ω
+12V LED
(LED CIR)
TR102
+12V
(PRE AMP CIR)
TR103
+12V DME
(DECK MECHA.)
TR104
POWER SUPPLY CURRENT OVER DETECT
POWER DOWN
TR158
TR151
7V REG
TR152
5.1V
7.5V
POWER DOWN DETECT
CIRCUIT
POWER
SUPPLY
DC
BALANCE
5.6V
MAIN -VCC
MAIN +VCC
D1
F4
5A
F3
+7V
-7V
6.2V
-VP
15Ω
TR81
-33V REG
TR82
DOUBLE VOLTAGE RECTFIER
D81~83
C81~83
+5.6V
IDL5V
+5V
TR25
IC21
ML7805FA
5V REG
TR23
TR21
TR24
TR22
LATCH
D5~D8
POWER ON/OFF
TR26
TR41
TR44
TR45
12V REG
0.47Ω
TR43
VF1
-VP
VF2
MAIN620 (C)
PCB
(A) PCB
ECHO1
ECHO2
Q2
QS'
CLK
OE
+5V
DATA
IC802
BU4094BC
(DATA SEPSRETOR)
NORMAL
4CH
2CH
C-CNT
N-C-B
N-C-A
N-C-E
Q1
Q3
Q4
Q5
Q6
Q7
Q8
STB
DATA
CLK
OE
CLK-AMP

NORMAL SIGNAL LINE (L-CH)
EFFECT SIGNAL LINE (DELAY & D.P.L)
MIC SIGNAL LINE
CENTER & SURROUND SIGNAL LINE

AC-620/623R/625K
MAIN
BLOCK DIAGRAM
NO.4-2 C105852M A1

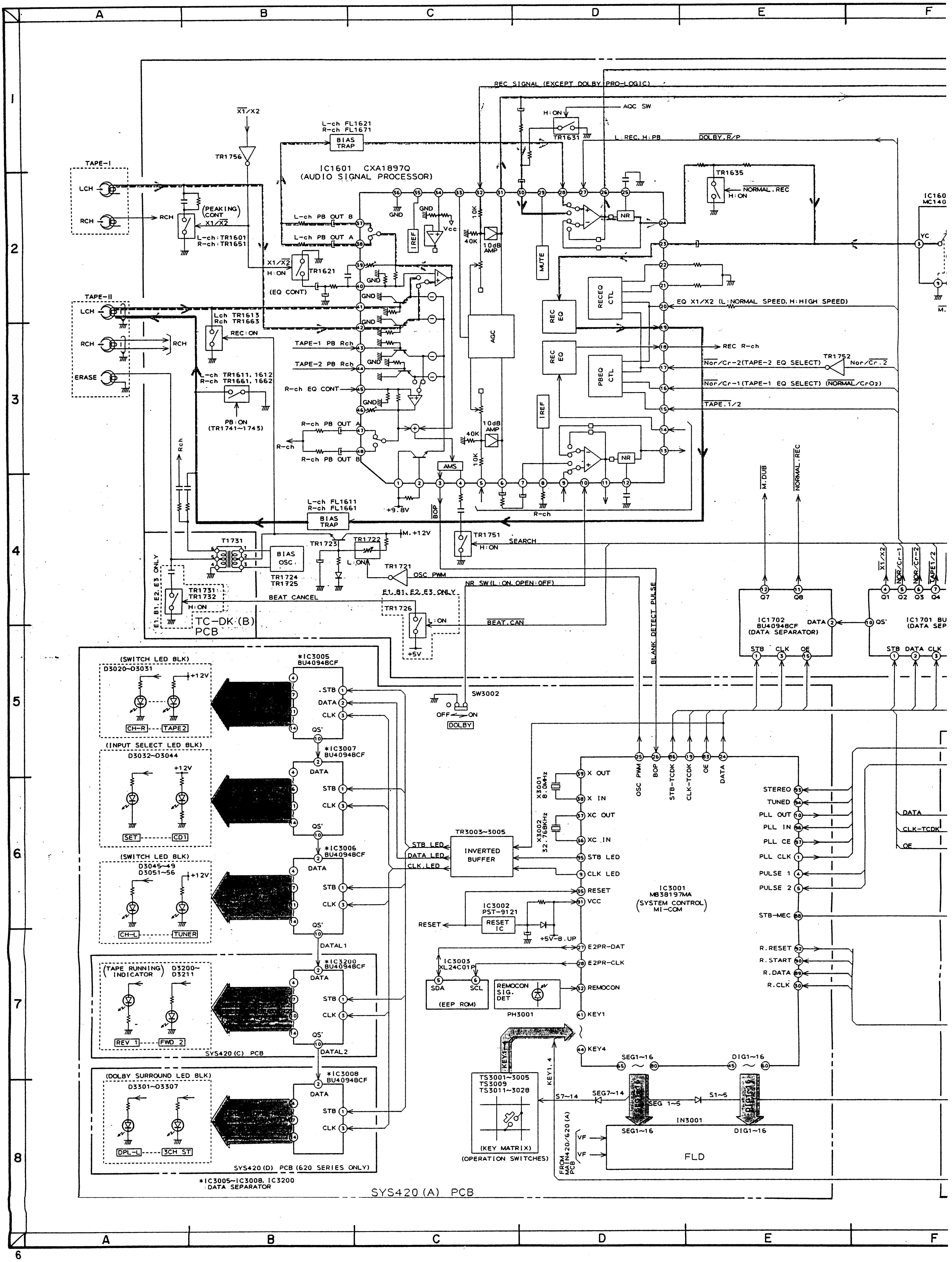


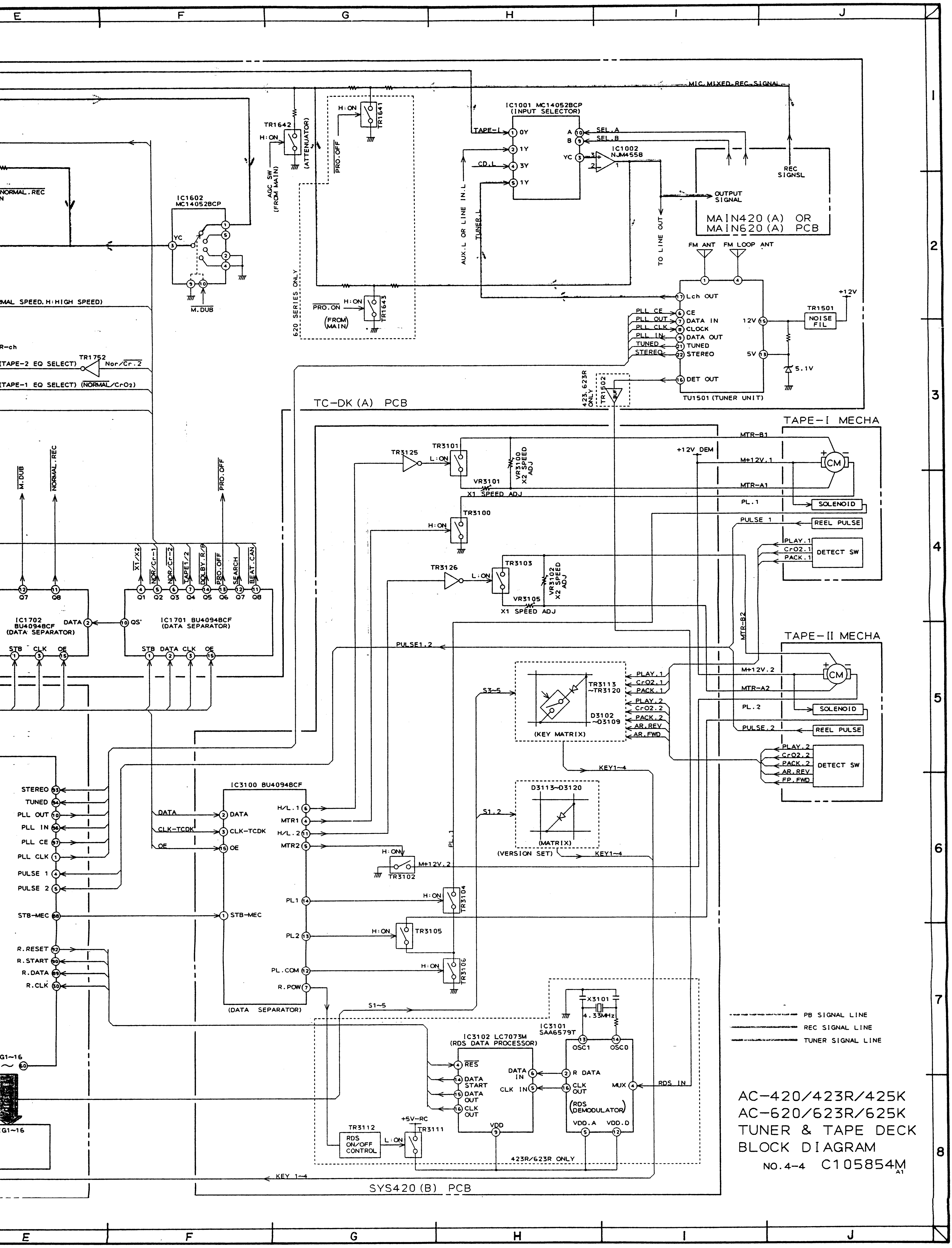
A
B
C
D
E
F
1
2
3
4
5
6
7
8
DOGITAL OUT
P1200
X1200 16.9344MHz
IC1200 CXD2508AQ (DIGITAL SIGNAL PROCESSOR)
DIGITAL FILTER + 1BIT DAC
IC1210 NJM4558D (2/2)
(1/2)
LPWM
RPWM
D/A INTERFACE
DIGITAL OUT
DIGITAL CLV
MDP
ERROR CORRECTOR
16K RAM
CPU INTERFACE
SCOR
SQCK
SENS
DATA.1
XLAT
CLOK
SQSO
SPOB
LD ON/OFF
XRST
EFM DEMODULATOR
SUB CODE PROCESSOR
CLOCK GENERATOR
ASYMMETRY CORRECTOR
DIGITAL PLL
SERVO AUTO SEQUENCER
CLK
XLT
DATA.2
SLED SW
RF
FOK
SEIN
CNIN (C.OUT)
FOCUS DRIVE
IC1100 CXA1782BQ (RF I-V AMP/RF AMP)
FE-O
FE-M
TA-M
DFCT
FS4
FS2
FS1
TG2
F. SET
TM1
TM7
TM3
TM4
TM2
TM5
TM6
TA-O
SL-O
ATSC
WINDOW COMP.
FCS PHASE COMPENSATION
TZC COMP
TG1
TOG1
TOG2
TOG3
BAL1
BAL2
BAL3
TE AMP
E IV AMP
F IV AMP
FE AMP
HPF COMP
LPF COMP
FZC COMP
TRACKING PHASE COMPENSATION
I SET
+5V
TOG1~3 BAL1~3
FS1~4
TG1~2
TM1~7
PS1~4
OUTPUT DECODER
IIL DATA REGISTER
INPUT SHIFT REGISTER
ADDRESS DECODER
IIL
TTL
CLK
XLT
DATA.2
XRST
C.OUT (CNIN)
SENS
FE-BIAS
RF IV AMP2
RF IV AMP1
VR1200 FOCUS OFF-SET
APC
FOK
MIRR
LEVEL S
DFCT
PHD2
PHD1
PHD
LD
RF-M
RF-O
RF-I
MONITOR
TR1100
TR1102
L:ON
TR1101
LD ON/OFF
RF-O
TC-DK (A) PCB
TRACKING DRIVE
M.CONT1
M.CONT2
M.CONT3
M.CONT4
XSRT
Q1
Q2
Q3
Q4
Q6
OE
STB
CLK
Q5
DATA
STB-TCDK
CLK-TCDK
CD.POWER
QS'
(FROM IC1701)
IC1702 BU4094BCF
(DATA SEPARATOR)
LD ON/OFF
M.+12V
TR1302
TR130
D130
SLED DRIVE
IC1300 KA92580 (MOTOR DRIVE)
LEVEL SHIFT
BUY
10K
+8V
TR1300
+5V REG
VB
MUTE
REGULATOR
T.S.D
50K
10K
PHOTO IN
TR1401
MDP
+5V
W1401
YMC03 (A) PCB
SPINDLE MOTOR
M
PICK-UP KSS-213C
E
F
+B
A
B
C
D
LD
FOCUS COIL
TRACKING COIL



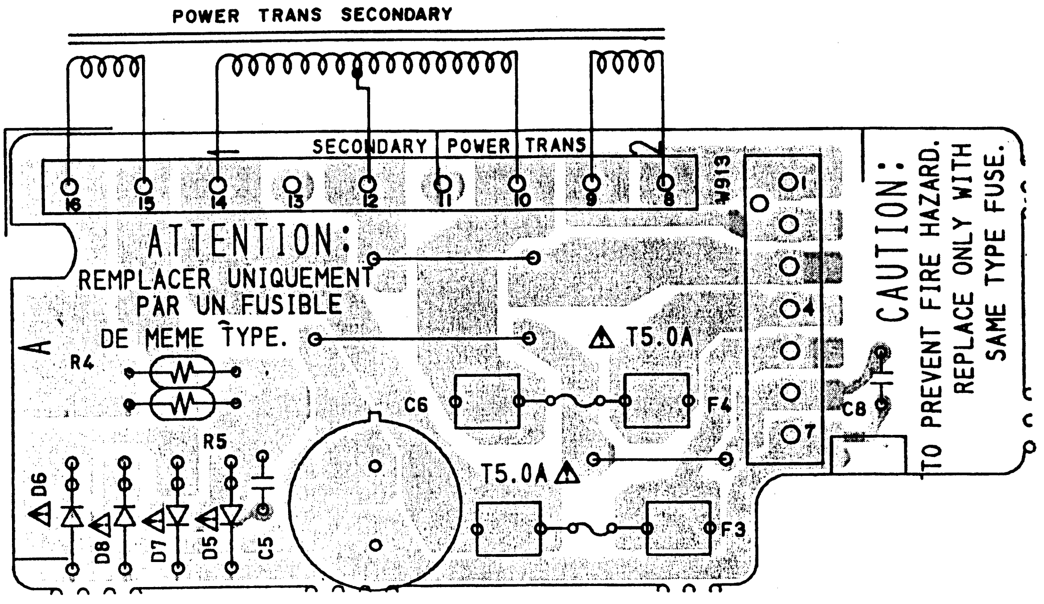
E
F
G
H
I
J
1
2
3
4
5
6
7
8
DOGITAL OUT
P1200
X1200 16.9344MHz
DIGITAL FILTER + 1BIT DAC
IC1210 NJM4558D (2/2)
LPWM
RPWM
(1/2)
L-CH
R-CH
TO IC1001
DIGITAL OUT
DIGITAL CLV
MDP
16K RAM
CPU INTERFACE
SUB CODE PROCESSOR
SCOR
SQCK
SENS
DATA.1
XLAT
CLOK
SQSO
SPOB
LD ON/OFF
XRST
DIGITAL PLL
SERVO AUTO SEQUENCER
CLK
XLT
DATA.2
FOK
SEIN
CNIN (C.OUT)
STB-TCDK, OE
CLK-TCDK
M.CONT3
M.CONT4
XSRT
OE
STB-TCDK
CLK-TCDK
CD.POWER
QS'
(FROM IC1701)
SEPARATOR)
LD ON/OFF
SLED SW
M.+12V
TR1301
TR1302
L.ON
D1300
D1304
+8V
SLED DRIVE
IC1300 KA92580 (MOTOR DRIVE)
LEVEL SHIFT
BUY
10K
VB
+5V
MUTE
TR1300
+5V REG
REGULATOR
T.S.D
50K
PHOTO IN
TR1401
+5V
W1401
YMC03 (A) PCB
SPINDLE MOTOR
SLED MOTOR
SLED SW
OPEN SW
CLOSE SW
CLAMP SW
LOADING MOTOR
MECHA BLK
YMC03 (B) PCB
W1400
MODE SW
OUT1
OUT COM
OUT2
M.CONT1~3.
M.CONT4
TR1400
VR
IC1400 BA6247 (REVERSIBLE MOTOR DRIVE)
LOGIC
PRE DRIVE
DRIVE
FROM MAIN420 (A) PCB OR MAIN620 (A) PCB
FLD IN3001
F1
F2
DIG1 ~ DIG16
SEG1 ~ SEG16
SEG 7, 8, 10, 11
IC3001 M38197MA-173FP (SYSTEM CONTROL) (MI-COM
X IN
X OUT
X3001 8MHz
XC IN
XC OUT
X3002 32.768KHz
STB-TCDK
CD-XLTA
CD-CLK
CD-DATA
CLK-TCDK
CD-SQCK
CD-SQSO
CD-SENS
CD-SCOR
IC3003 XL24C01
EEP-ROM
E2PR-DAT
E2PR-CLK
SDA
SCL
MODE SW
PHOTO IN
KEY4
VREF
+5V RC
KEY1
KEY3
IC3002 PST-9121
RESET IC
RESET
REMOCON
LED DATA2
LED CLOCK
LED STROBE
VCC
+5V B.UP
PH3001
REMOCON SIG.DET
TR3003~3005
BUFFER
IC3007 BU4094BCF
STB
DATA
CLK
CD1
CD2
CD3
TO IC3006 ② PIN
QS'
(DATA SEPARATOR)
+5.6V
+5V B.UP
+5V RC
SYS420 (A) PCB
S7
S8
TS3301
CHANGE
TS3300
OPEN/CLOSE
SYS420 (D) PCB
S10
S11
TS3013~TS3015
KEY1
KEY3
KEY4
(KEY MATRIX)
CD1 ~ CD3
+12V-LED
ORANGE LED
GREEN LED
SLED MOTOR LINE
SPINDLE MOTOR LINE
FOCUS SERVO LINE
TRACKING SERVO LINE
RF SIGNAL LINE
SIGNAL LINE
5

AC-420/423R/425K
AC-620/623R/625K
CD
BLOCK DIAGRAM
NO.4-3 C105853M A1

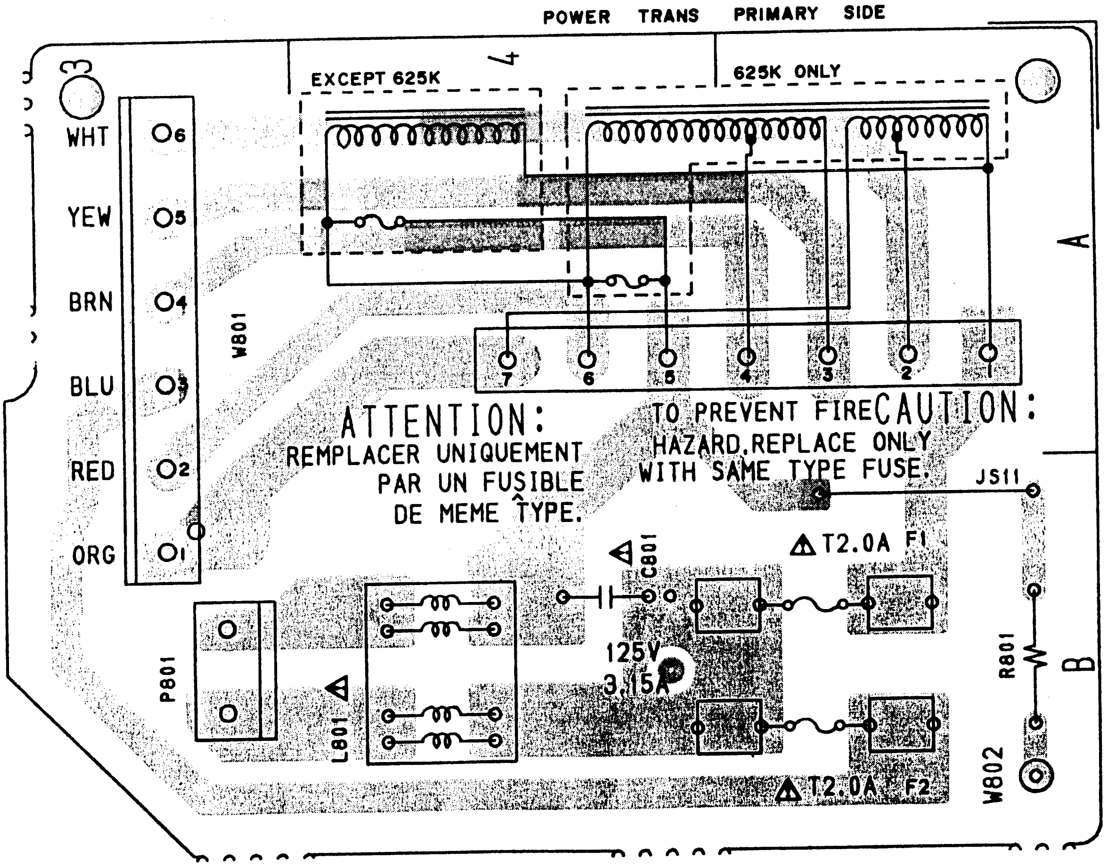

A
B
C
D
E
F
1
2
3
4
5
6
7
8
REC SIGNAL (EXCEPT DOLBY PRO-LOGIC)
AQC SW
H:ON
TR1631
L:REC, H:PB
DOLBY,R/P
X1/X2
TR1756
L-ch FL1621
R-ch FL1671
BIAS TRAP
IC1601 CXA1897Q
(AUDIO SIGNAL PROCESSOR)
TAPE-I
LCH
RCH
(PEAKING) CONT
X1/X2
L-ch:TR1601
R-ch:TR1651
L-ch PB OUT B
L-ch PB OUT A
GND
Vcc
IREF
10K
40K
10dB AMP
MUTE
NR
TR1635
NORMAL.REC
H:ON
IC160
MC140
YC
X1/X2
H:ON
TR1621
(EQ CONT)
TAPE-II
LCH
RCH
ERASE
Lch TR1613
Rch TR1663
REC:ON
TAPE-1 PB Rch
TAPE-2 PB Rch
L-ch TR1611, 1612
R-ch TR1661, 1662
PB:ON
(TR1741~1743)
R-ch EQ CONT
R-ch PB OUT A
R-ch PB OUT B
R-ch
AGC
REC EQ
RECEQ CTL
PBEQ CTL
EQ X1/X2 (L:NORMAL SPEED, H:HIGH SPEED)
REC R-ch
TR1752
Nor/Cr-2(TAPE-2 EQ SELECT)
Nor/Cr.2
Nor/Cr-1(TAPE-1 EQ SELECT) (NORMAL/CrO2)
TAPE.1/2
AMS
+9.8V
BOP
R-ch
Rch
L-ch FL1611
R-ch FL1661
BIAS TRAP
M.+12V
TR1722
TR1723
T1731
BIAS OSC
TR1724
TR1725
L:ON
TR1721
OSC PWM
TR1751
H:ON
SEARCH
NR SW(L:ON, OPEN:OFF)
E1, B1, E2, E3 ONLY
TR1731
TR1732
H:ON
BEAT CANCEL
E1, B1, E2, E3 ONLY
TR1726
L:ON
BEAT.CAN
+5V
TC-DK (B) PCB
BLANK DETECT PULSE
M.DUB
NORMAL.REC
X1/X2
NOR/Cr-1
NOR/Cr-2
TAPE1/2
Q7
Q8
Q1
Q2
Q3
Q4
IC1702
BU4094BCF
(DATA SEPARATOR)
DATA
QS'
IC1701 BU
(DATA SEP
STB
CLK
OE
STB DATA CLK
(SWITCH LED BLK)
D3020~D3031
+12V
CH-R
TAPE2
*IC3005
BU4094BCF
STB
DATA
CLK
QS'
SW3002
OFF
ON
DOLBY
(INPUT SELECT LED BLK)
D3032~D3044
+12V
SET
CD1
*IC3007
BU4094BCF
DATA
STB
CLK
QS'
(SWITCH LED BLK)
D3045~49
D3051~56
+12V
CH-L
TUNER
*IC3006
BU4094BCF
DATA
STB
CLK
QS'
DATAL1
STB LED
DATA LED
CLK LED
TR3003~3005
INVERTED BUFFER
(TAPE RUNNING INDICATOR)
D3200~D3211
REV 1
FWD 2
*IC3200
BU4094BCF
DATA
STB
CLK
QS'
DATAL2
SYS420 (C) PCB
(DOLBY SURROUND LED BLK)
D3301~D3307
DPL-L
3CH ST
*IC3008
BU4094BCF
DATA
STB
CLK
SYS420 (D) PCB (620 SERIES ONLY)
*IC3005~IC3008, IC3200
DATA SEPARATOR
SYS420 (A) PCB
OSC PWM
BOP
STB-TCDK
CLK-TCDK
OE
DATA
X3001
8.0MHz
X OUT
X IN
X3002
32.768KHz
XC OUT
XC IN
STB LED
CLK LED
RESET
VCC
IC3001
MB38197MA
(SYSTEM CONTROL)
MI-COM
IC3002
PST-9121
RESET IC
RESET
+5V-B.UP
E2PR-DAT
E2PR-CLK
IC3003
XL24C01P
SDA
SCL
(EEP ROM)
REMOCON SIG. DET
PH3001
REMOCON
KEY1
KEY4
KEY1~4
KEY1, 4
TS3001~3005
TS3009
TS3011~3028
(KEY MATRIX)
(OPERATION SWITCHES)
S7~14
SEG7~14
SEG 1~5
S1~5
SEG1~16
DIG1~16
IN3001
FLD
VF
VF
FROM MAIN420/620 (A) PCB
STEREO
TUNED
PLL OUT
PLL IN
PLL CE
PLL CLK
PULSE 1
PULSE 2
STB-MEC
R.RESET
R.START
R.DATA
R.CLK
DATA
CLK-TCDK
OE


E
F
G
H
I
J
1
2
3
4
5
6
7
8
MIC MIXED REC SIGNAL
IC1001 MC14052BCP (INPUT SELECTOR)
TAPE-L
CD.L
AUX.L OR LINE IN.L
TUNER.L
0Y
1Y
3Y
1Y
A
B
YC
SEL.A
SEL.B
IC1002 NJM4558
OUTPUT SIGNAL
TO LINE OUT
REC SIGNSL
MAIN420 (A) OR MAIN620 (A) PCB
TR1642
H:ON
(ATTENUATOR)
AGC SW (FROM MAIN)
TR1641
PRO.OFF
TR1643
PRO.ON
(FROM MAIN)
620 SERIES ONLY
IC1602 MC14052BCP
M.DUB
NORMAL.REC
NORMAL SPEED, H:HIGH SPEED)
R-ch
TR1752
(TAPE-2 EQ SELECT)
Nor/Cr.2
(TAPE-1 EQ SELECT) (NORMAL/CrO2)
FM ANT
FM LOOP ANT
Lch OUT
PLL CE
PLL OUT
PLL CLK
PLL IN
TUNED
STEREO
CE
DATA IN
CLOCK
DATA OUT
TUNED
STEREO
DET OUT
12V
5V
5.1V
+12V
TR1501
NOISE FIL
TU1501 (TUNER UNIT)
423, 623R ONLY
TR1502
BUF
TC-DK (A) PCB
M.DUB
NORMAL.REC
PRO.OFF
X1/X2
NOR/Cr-1
NOR/Cr-2
TAPE1/2
DOLBY.R/P
PRO.OFF
SEARCH
BEAT.CAN
Q7
Q8
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
IC1702 BU4094BCF (DATA SEPARATOR)
DATA
QS'
IC1701 BU4094BCF (DATA SEPARATOR)
STB
CLK
OE
STB
DATA
CLK
OE
TAPE-I MECHA
TAPE-II MECHA
TR3101
TR3125
L:ON
VR3100 X2 SPEED ADJ
VR3101 X1 SPEED ADJ
TR3100
H:ON
TR3126
TR3103
VR3102 X2 SPEED ADJ
VR3105 X1 SPEED ADJ
+12V DEM
MTR-B1
M+12V.1
MTR-A1
PL.1
PULSE 1
CM
SOLENOID
REEL PULSE
PLAY.1
CrO2.1
PACK.1
DETECT SW
MTR-B2
M+12V.2
MTR-A2
PL.2
PULSE.2
PLAY.2
CrO2.2
PACK.2
AR.REV
FP.FWD
PULSE1.2
S3~5
TR3113 ~TR3120
D3102 ~D3109
(KEY MATRIX)
PLAY.1
CrO2.1
PACK.1
PLAY.2
CrO2.2
PACK.2
AR.REV
AR.FWD
KEY1~4
D3113~D3120
S1.2
(MATRIX)
(VERSION SET)
KEY1~4
STEREO
TUNED
PLL OUT
PLL IN
PLL CE
PLL CLK
PULSE 1
PULSE 2
STB-MEC
R.RESET
R.START
R.DATA
R.CLK
G1~16
IC3100 BU4094BCF
DATA
CLK-TCDK
OE
STB-MEC
H/L.1
MTR1
H/L.2
MTR2
PL1
PL2
PL.COM
R.POW
(DATA SEPARATOR)
TR3102
M+12V.2
TR3104
TR3105
TR3106
PL.1
S1~5
IC3102 LC7073M (RDS DATA PROCESSOR)
RES
DATA START
DATA OUT
CLK OUT
DATA IN
CLK IN
VDD
IC3101 SAA6579T
X3101
4.33MHz
OSC1
OSC0
R DATA
CLK OUT
MUX
RDS IN
(RDS DEMODULATOR)
VDD.A
VDD.D
TR3112
RDS ON/OFF CONTROL
+5V-RC
TR3111
423R/623R ONLY
KEY 1~4
SYS420 (B) PCB
PB SIGNAL LINE
REC SIGNAL LINE
TUNER SIGNAL LINE

AC-420/423R/425K
AC-620/623R/625K
TUNER & TAPE DECK
BLOCK DIAGRAM
NO.4-4 C105854M A1


POWER TRANS SECONDARY
SECONDARY POWER TRANS
16
15
14
13
12
11
10
9
8
W913
1
4
7
ATTENTION:
REMPLACER UNIQUEMENT
PAR UN FUSIBLE
DE MEME TYPE.
CAUTION:
TO PREVENT FIRE HAZARD.
REPLACE ONLY WITH
SAME TYPE FUSE.
A
R4
R5
C6
T5.0A
F4
C8
T5.0A
F3
D6
D8
D7
D5
C5

MAIN620(C) PCB C1060A501C

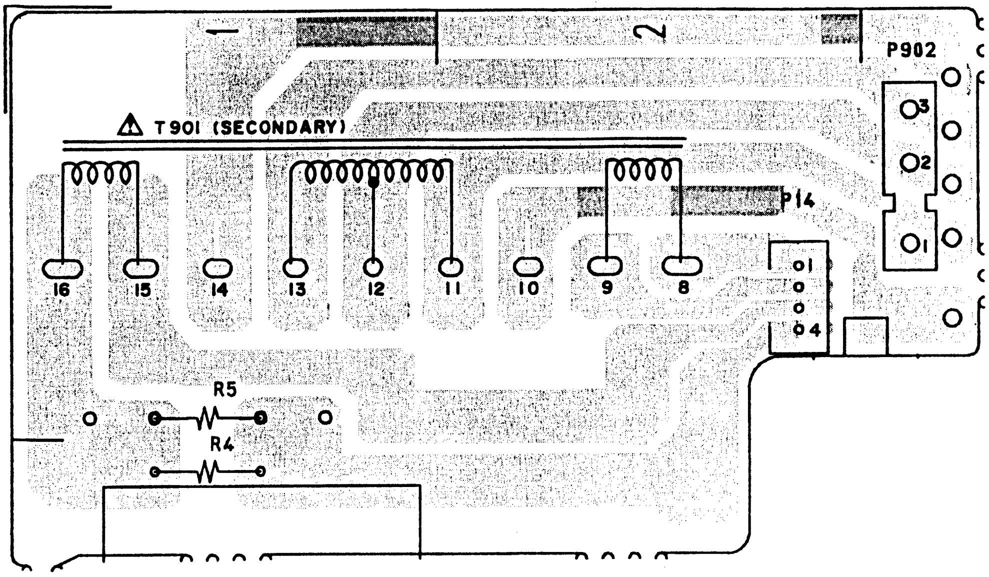

POWER TRANS PRIMARY SIDE
EXCEPT 625K
625K ONLY
WHT
YEW
BRN
BLU
RED
ORG
6
5
4
3
2
1
W801
7
6
5
4
3
2
1
A
ATTENTION:
REMPLACER UNIQUEMENT
PAR UN FUSIBLE
DE MEME TYPE.
CAUTION:
TO PREVENT FIRE
HAZARD, REPLACE ONLY
WITH SAME TYPE FUSE.
JS11
T2.0A F1
C801
125V
3.15A
R801
B
P801
L801
T2.0A F2
W802

MAIN620(B) PCB C1060A501B

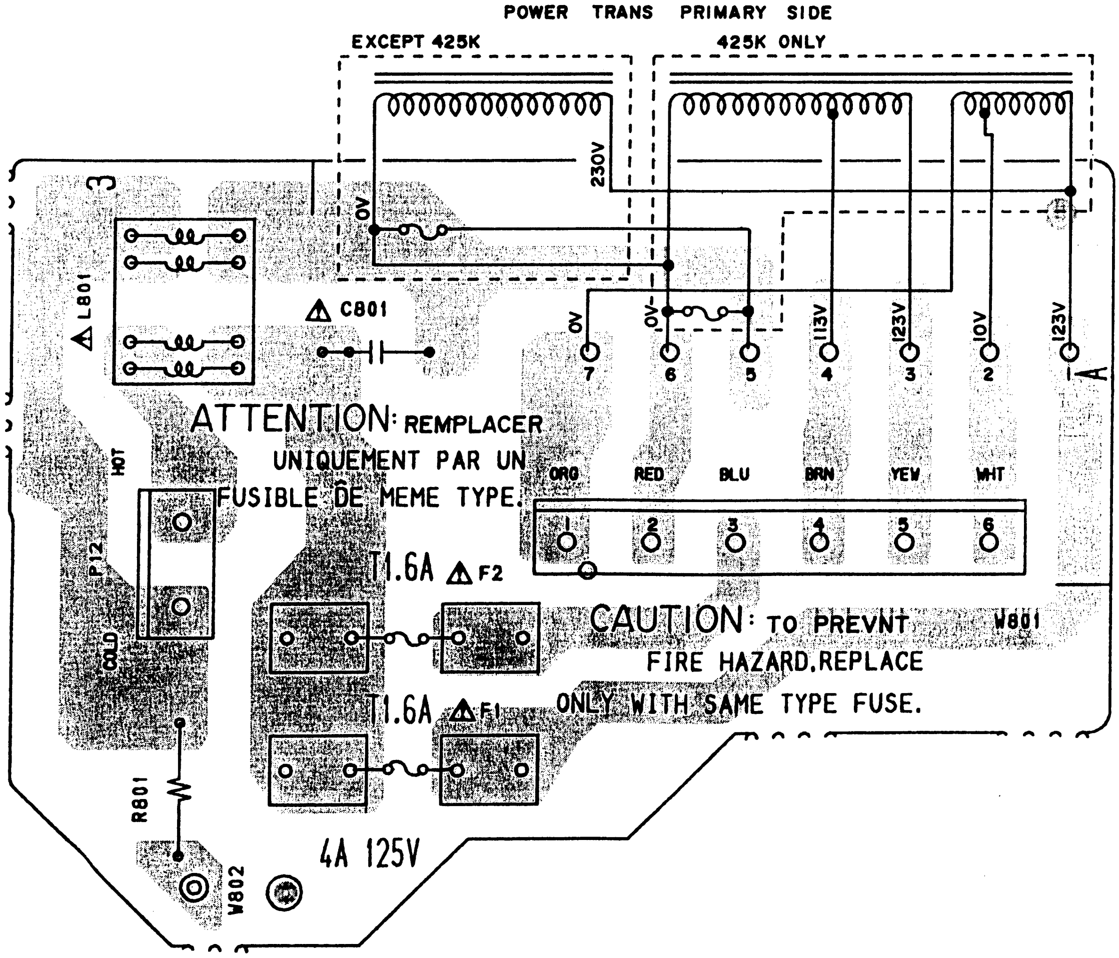
NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY,
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

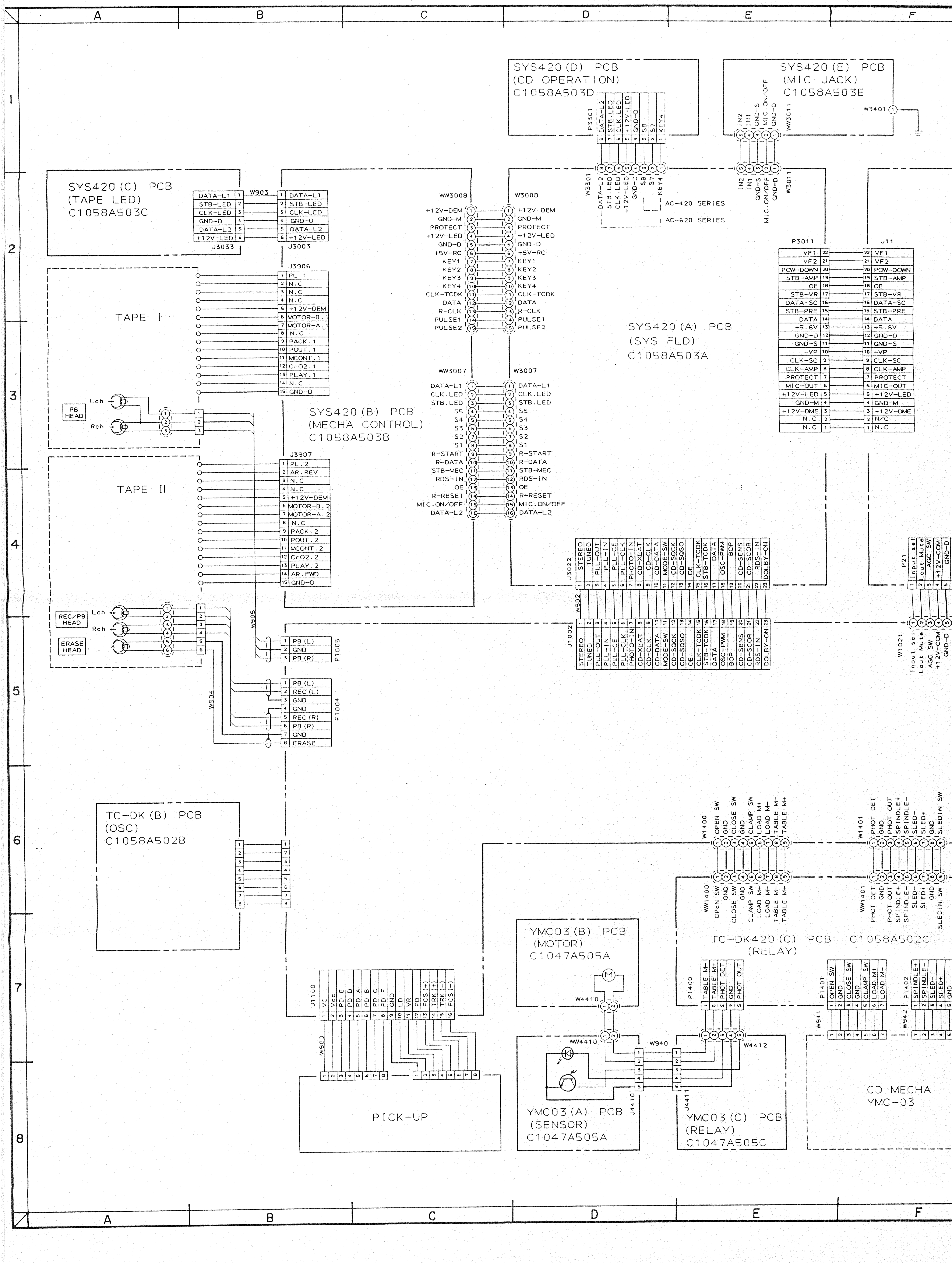
AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

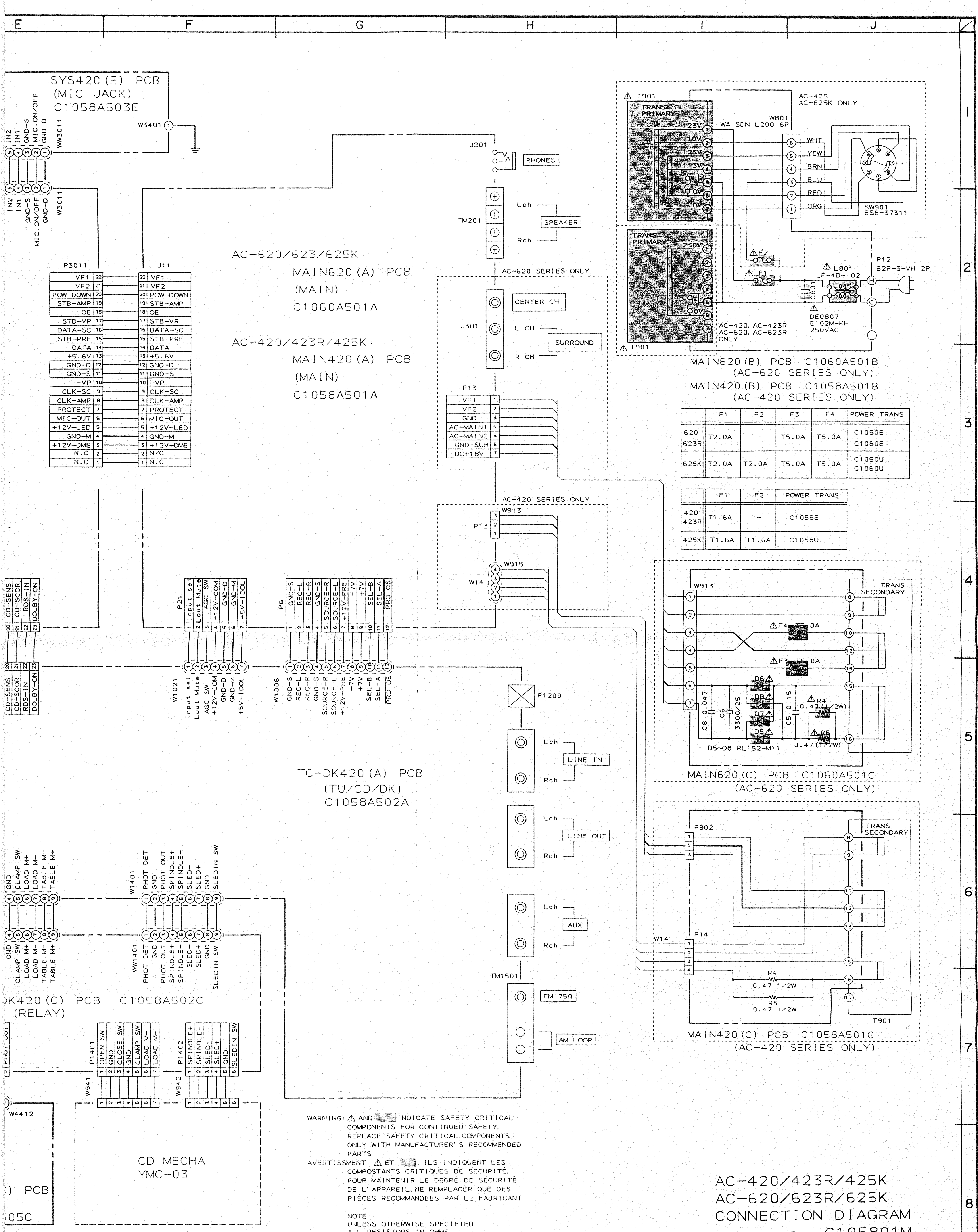

1
2
T901 (SECONDARY)
P902
3
2
1
P14
1
4
16
15
14
13
12
11
10
9
8
R5
R4

MAIN420(C) PCB C1058A501C


POWER TRANS PRIMARY SIDE
EXCEPT 425K
425K ONLY
0V
230V
3
L801
C801
0V
0V
113V
123V
10V
123V
7
6
5
4
3
2
A
ATTENTION: REMPLACER UNIQUEMENT PAR UN FUSIBLE DE MEME TYPE.
ORG
RED
BLU
BRN
YEW
WHT
1
2
3
4
5
6
HOT
P12
COLD
T1.6A F2
CAUTION: TO PREVNT FIRE HAZARD,REPLACE ONLY WITH SAME TYPE FUSE.
W801
T1.6A F1
R801
W802
4A 125V

MAIN420(B) PCB C1058A501B


A
B
C
D
E
F
1
2
3
4
5
6
7
8
SYS420 (D) PCB
(CD OPERATION)
C1058A503D
P3301
DATA-L2
STB.LED
CLK.LED
+12V-LED
GND-D
S8
S7
KEY4
W3301
AC-420 SERIES
AC-620 SERIES
SYS420 (E) PCB
(MIC JACK)
C1058A503E
WW3011
IN2
IN1
GND-S
MIC.ON/OFF
GND-D
W3011
W3401
SYS420 (C) PCB
(TAPE LED)
C1058A503C
DATA-L1
STB-LED
CLK-LED
GND-D
DATA-L2
+12V-LED
J3033
W903
J3003
WW3008
W3008
+12V-DEM
GND-M
PROTECT
+12V-LED
GND-D
+5V-RC
KEY1
KEY2
KEY3
KEY4
CLK-TCDK
DATA
R-CLK
PULSE1
PULSE2
J3906
TAPE I
PL.1
N.C
+12V-DEM
MOTOR-B.1
MOTOR-A.1
PACK.1
POUT.1
MCONT.1
CrO2.1
PLAY.1
GND-D
PB HEAD
Lch
Rch
SYS420 (B) PCB
(MECHA CONTROL)
C1058A503B
SYS420 (A) PCB
(SYS FLD)
C1058A503A
WW3007
W3007
DATA-L1
CLK.LED
STB.LED
S5
S4
S3
S2
S1
R-START
R-DATA
STB-MEC
RDS-IN
OE
R-RESET
MIC.ON/OFF
DATA-L2
P3011
J11
VF1
VF2
POW-DOWN
STB-AMP
OE
STB-VR
DATA-SC
STB-PRE
DATA
+5.6V
GND-D
GND-S
-VP
CLK-SC
CLK-AMP
PROTECT
MIC-OUT
+12V-LED
GND-M
+12V-DME
N.C
N/C
J3907
TAPE II
PL.2
AR.REV
N.C
+12V-DEM
MOTOR-B.2
MOTOR-A.2
PACK.2
POUT.2
MCONT.2
CrO2.2
PLAY.2
AR.FWD
GND-D
REC/PB HEAD
ERASE HEAD
W905
W904
P1005
PB (L)
GND
PB (R)
P1004
PB (L)
REC (L)
GND
GND
REC (R)
PB (R)
GND
ERASE
J3022
W902
J1002
STEREO
TUNED
PLL-OUT
PLL-IN
PLL-CE
PLL-CLK
PHOTO-IN
CD-XLAT
CD-CLK
CD-DATA
MODE-SW
CD-SQCK
CD-SQSO
OE
CLK-TCDK
STB-TCDK
DATA
OSC-PWM
BOP
CD-SENS
CD-SCOR
RDS-IN
DOLBY-ON
P21
W1021
Input sel
Lout Mute
AGC SW
+12V-COM
GND-D
TC-DK (B) PCB
(OSC)
C1058A502B
W1400
WW1400
OPEN SW
GND
CLOSE SW
GND
CLAMP SW
LOAD M+
LOAD M-
TABLE M-
TABLE M+
W1401
WW1401
PHOT DET
GND
PHOT OUT
SPINDLE+
SPINDLE-
SLED-
SLED+
GND
SLEDIN SW
TC-DK420 (C) PCB C1058A502C
(RELAY)
YMC03 (B) PCB
(MOTOR)
C1047A505A
W4410
WW4410
J1100
W900
VC
Vcc
PD E
PD D
PD A
PD B
PD C
PD F
GND
LD
VR
PD
FCS (+)
TRK (+)
TRK (-)
FCS (-)
PICK-UP
W940
W4412
P1400
TABLE M-
TABLE M+
PHOT DET
GND
PHOT OUT
P1401
W941
OPEN SW
GND
CLOSE SW
GND
CLAMP SW
LOAD M+
LOAD M-
P1402
W942
SPINDLE+
SPINDLE-
SLED-
SLED+
GND
YMC03 (A) PCB
(SENSOR)
C1047A505A
J4410
J4411
YMC03 (C) PCB
(RELAY)
C1047A505C
CD MECHA
YMC-03


SYS420 (E) PCB
(MIC JACK)
C1058A503E
W3401
IN2
IN1
GND-S
MIC.ON/OFF
GND-D
W3011
WW3011
P3011
J11
VF1
VF2
POW-DOWN
STB-AMP
OE
STB-VR
DATA-SC
STB-PRE
DATA
+5.6V
GND-D
GND-S
-VP
CLK-SC
CLK-AMP
PROTECT
MIC-OUT
+12V-LED
GND-M
+12V-DME
N.C
N/C
AC-620/623/625K:
MAIN620 (A) PCB
(MAIN)
C1060A501A
AC-420/423R/425K:
MAIN420 (A) PCB
(MAIN)
C1058A501A
J201
PHONES
TM201
Lch
Rch
SPEAKER
AC-620 SERIES ONLY
J301
CENTER CH
L CH
R CH
SURROUND
P13
VF1
VF2
GND
AC-MAIN1
AC-MAIN2
GND-SUB
DC+18V
AC-420 SERIES ONLY
W913
P13
W915
W14
T901
TRANS PRIMARY
123V
10V
123V
113V
0V
230V
AC-425
AC-625K ONLY
W801
WA SDN L200 6P
WHT
YEW
BRN
BLU
RED
ORG
SW901
ESE-37311
F2
F1
L801
LF-4D-102
C801
DE0807
E102M-KH
250VAC
P12
B2P-3-VH 2P
AC-420, AC-423R
AC-620, AC-623R
ONLY
MAIN620 (B) PCB C1060A501B
(AC-620 SERIES ONLY)
MAIN420 (B) PCB C1058A501B
(AC-420 SERIES ONLY)
W913
TRANS SECONDARY
F4 T5.0A
F3 T5.0A
D6
D8
D7
D5
C8 0.047
C6 3300/25
C5 0.15
R4 0.47 (1/2W)
R5 0.47 (1/2W)
D5~D8: RL152-M11
MAIN620 (C) PCB C1060A501C
(AC-620 SERIES ONLY)
P902
TRANS SECONDARY
W14
P14
R4 0.47 1/2W
R5 0.47 1/2W
T901
MAIN420 (C) PCB C1058A501C
(AC-420 SERIES ONLY)
CD-SENS
CD-SCOR
RDS-IN
DOLBY-ON
P21
Input sel
Lout Mute
AGC SW
+12V-COM
GND-D
GND-M
+5V-IDOL
W1021
P6
GND-S
REC-L
REC-R
GND-S
SOURCE-R
SOURCE-L
+12V-PRE
-7V
+7V
SEL-B
SEL-A
PRO OS
W1006
P1200
LINE IN
LINE OUT
AUX
TM1501
FM 75Ω
AM LOOP
TC-DK420 (A) PCB
(TU/CD/DK)
C1058A502A
GND
CLAMP SW
LOAD M+
LOAD M-
TABLE M-
TABLE M+
W1401
WW1401
PHOT DET
GND
PHOT OUT
SPINDLE+
SPINDLE-
SLED-
SLED+
GND
SLEDIN SW
K420 (C) PCB C1058A502C
(RELAY)
P1401
OPEN SW
GND
CLOSE SW
GND
CLAMP SW
LOAD M+
LOAD M-
W941
P1402
SPINDLE+
SPINDLE-
SLED-
SLED+
GND
SLEDIN SW
W942
W4412
CD MECHA
YMC-03
) PCB
05C
E
F
G
H
I
J
1
2
3
4
5
6
7
8

	F1	F2	F3	F4	POWER TRANS
620 623R	T2.0A	-	T5.0A	T5.0A	C1050E C1060E
625K	T2.0A	T2.0A	T5.0A	T5.0A	C1050U C1060U

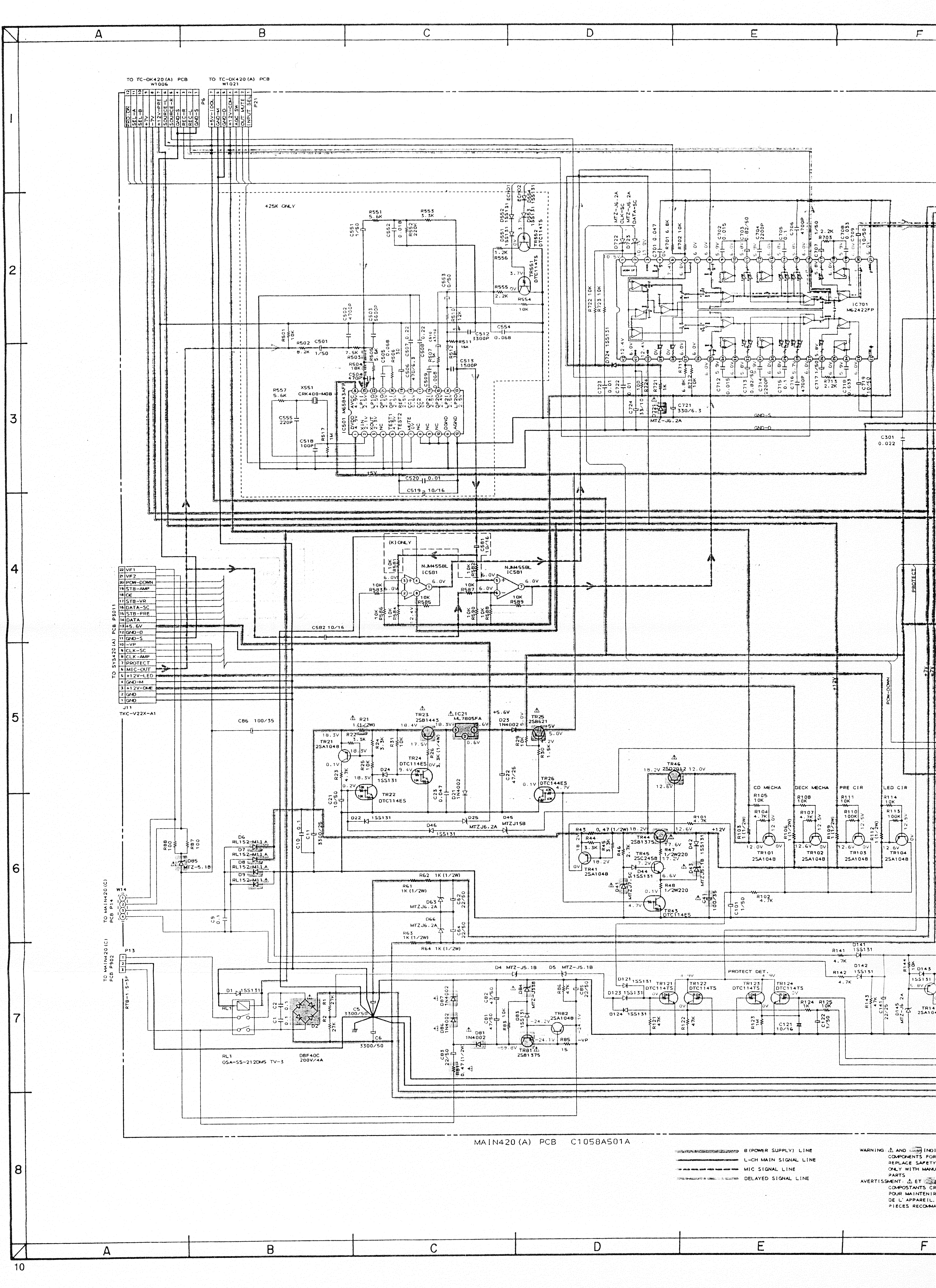
	F1	F2	POWER TRANS
420 423R	T1.6A	-	C1058E
425K	T1.6A	T1.6A	C1058U

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨, ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV

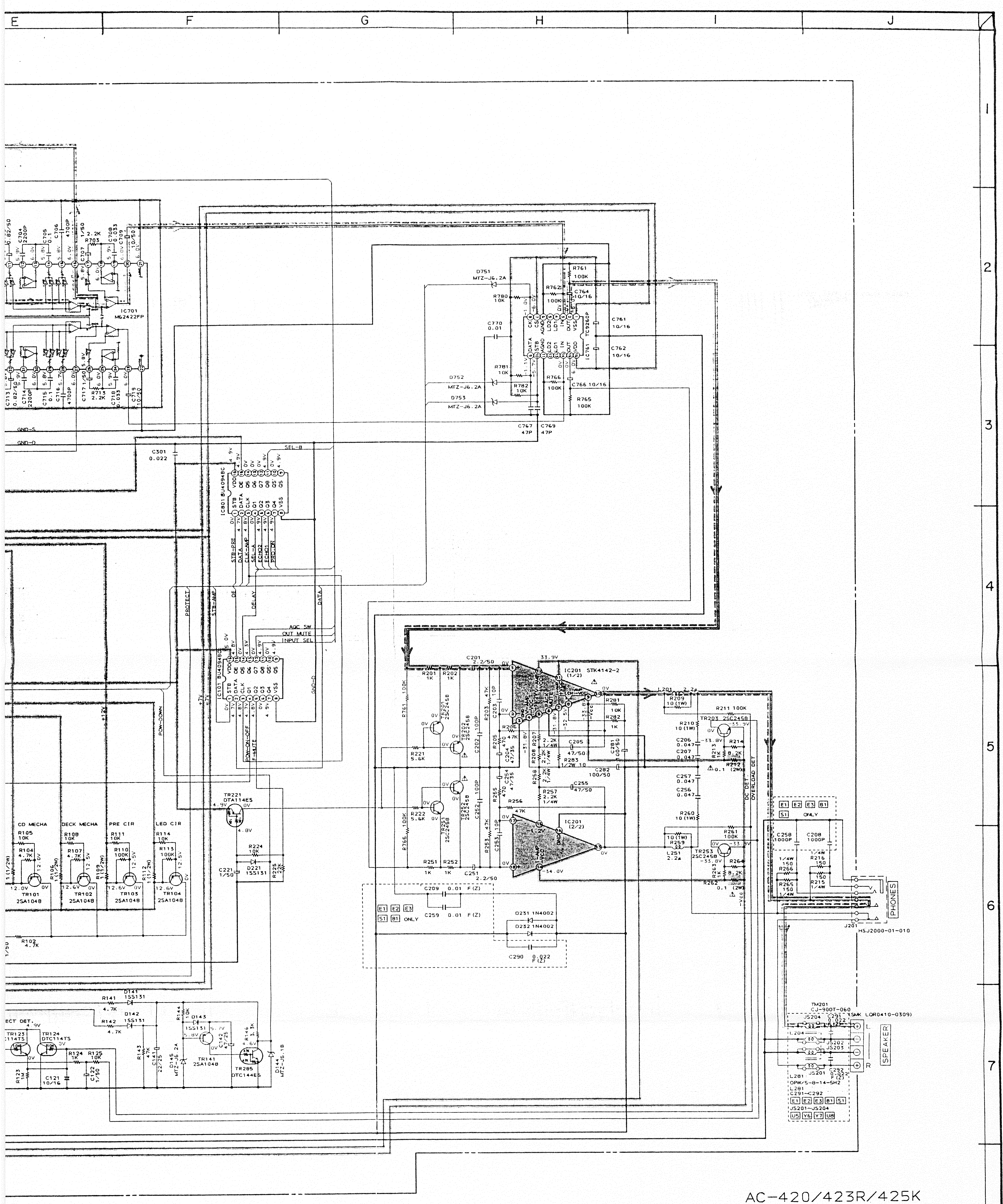
AC-420/423R/425K
AC-620/623R/625K
CONNECTION DIAGRAM
NO.5-1 C105801M A1


A
B
C
D
E
F
1
2
3
4
5
6
7
8
TO TC-DK420(A) PCB W1006
TO TC-DK420(A) PCB W1021
P6
P21
PRO-DR
SEL-A
SEL-B
+7V
+12V-PRE
SOURCE-L
SOURCE-R
GND-S
REC-R
REC-L
GND-S
+5V-IDOL
GND-M
GND-D
+12V-CDM
ASC SW
OUT MUTE
INPUT SEL
425K ONLY
R551 5.6K
R553 3.3K
C551 1/50
C552
R552 220K
D551 1SS131
D552 1SS131
D553 1SS131
D554 1SS131
ECHO1
ECHO2
TR552 DTC114TS
TR551 DTC114TS
R556 1.2K
R555 2.2K
R554 10K
C553 10/50
C502 4700P
C503 5600P
R501 10K
R502 8.2K
C501 1/50
R503 7.5K
R504 18K
R505 5.6K
C504 470P
C505 0.068
R506 12K
C506 470/6.3
C507 0.22
C508 0.22
C509 0.068
C510 47/16
R507 12K
R510 12K
R511 15K
C512 3300P
C554 0.068
R512 12K
C513 1500P
R557 5.6K
X551 CRK400-M08
C555 220P
C518 100P
R517 1M
IC501 M65843AFP
C520 0.01
C519 10/16
+5V
D722
D723
MTZ-J6.2A
CLK-SC
DATA-SC
R701 6.8K
R702 10K
C701 0.047
C702 0.015
C703 0.82/50
C704 2200P
C705 0.1
C706 4700P
R703 1/50
C707 2.2K
C708 0.033
C709 10/50
IC701 M62422FP
R722 10K
R723 10K
D724 1SS131
C723 0.01
C722 0.01
C724 33/10
R724 100
R721 1K
D721 MTZ-J6.2A
C721 330/6.3
R711 6.8K
R712 10K
C712 0.015
C713 0.82/50
C714 2200P
C715 0.1
C716 4700P
C717 1/50
R713 2.2K
C718 0.033
C719 10/50
GND-S
GND-D
C301 0.022
(K) ONLY
NJM4558L IC581
R581 10K
R582 10K
R583 10K
R584 10K
R585 10K
R586 10K
R587 10K
R588 10K
R589 10K
R590 10K
C581 10/16
C582 10/16
6.0V
2.4V
TO SYS420(A) PCB P3011
VF1
VF2
POW-DOWN
STB-AMP
OE
STB-VR
DATA-SC
STB-PRE
DATA
+5.6V
GND-D
GND-S
-VP
CLK-SC
CLK-AMP
PROTECT
MIC-OUT
+12V-LED
GND-M
+12V-DME
GND
GND
J11 TKC-V22X-A1
C86 100/35
R21 1 (1/2W)
TR23 2SB1443
IC21 ML7805FA
+5.6V
D23 1N4002
TR25 2SB621
TR21 2SA1048
R22 3.3K
R24 3.3K
R31 10K
R26 3.3K (1/4W)
TR24 DTC114ES
D24 1SS131
R23 4.7K
R25 10K
TR22 DTC114ES
C21 10/50
C23 0.047
D21 1N4002
C24 47/25
R29 10K
R30 1.5K
TR26 DTC144ES
D22 1SS131
D25
D45 MTZJ15B
D46 1SS131
MTZJ6.2A
C10 0.1
C11 3300/25
R88 100
R87 100
D85 MTZ-5.1B
D6 RL152-M13
D7 RL152-M13
D8 RL152-M13
D9 RL152-M13
W14
TO MAIN420(C) PCB P14
C9 0.1
R62 1K (1/2W)
R61 1K (1/2W)
D63 MTZJ6.2A
C62 22/50
D66 MTZJ6.2A
C64 22/50
R63 1K (1/2W)
R64 1K (1/2W)
TR46 2SD2012
R43 0.47 (1/2W)
R44 3.3K
R45 3.3K
R46 2.7K
TR44 2SB1375
R47 1/2W220
TR45 2SC2458
D44 1SS131
D42 1SS131
D43 1SS131
R48 1/2W220
TR41 2SA1048
D41 MTZJ7.5C
TR43 DTC114ES
C41 100/35
R101 4.7K
+12V
R102 4.7K
C101 1/50
CD MECHA
DECK MECHA
PRE CIR
LED CIR
R105 10K
R104 4.7K
R103 1/2W
TR101 2SA1048
R108 10K
R107 4.7K
R106 1/2W
TR102 2SA1048
R111 10K
R110 100K
R109 1/2W
TR103 2SA1048
R114 10K
R113 100K
R112 1/2W
TR104 2SA1048
PROTECT
POW-DOWN
+12V
+7V
TO MAIN420(C) PCB P902
P13
RTB-1.5-3P
D1 1SS131
RL1
C1 0.1
C2 0.1
R1 27K
R2 27K
D2
C5 3300/50
C6 3300/50
RL1 OSA-SS-212DM5 TV-3
DBF40C 200V/4A
D4 MTZ-J5.1B
D5 MTZ-J5.1B
D87 1N4002
D86 1N4002
C82 47/50
C81 47/50
D84 MTZ-J33B
D83 1SS131
R83 10K
R86 4.7K
C85 22/50
TR82 2SA1048
TR81 2SB1375
R85 15
-VP
D81 1N4002
C83 22/50
R81 0.47 (1/2W)
PROTECT DET.
D121 1SS131
D123 1SS131
D124 1SS131
TR121 DTC114TS
TR122 DTC114TS
TR123 DTC114TS
TR124 DTC114TS
R121 47K
R122 47K
R123 1M
C121 10/16
R124 1K
R125 10K
C122 1/50
D141 1SS131
R141 4.7K
D142 1SS131
R142 4.7K
R143 47K
C141 22/25
D145 MTZJ6.2A
D143 1SS131

MAIN420(A) PCB C1058A501A

B (POWER SUPPLY) LINE
L-CH MAIN SIGNAL LINE
MIC SIGNAL LINE
DELAYED SIGNAL LINE

WARNING: ⚠ AND ▨ INDI
COMPONENTS FOR
REPLACE SAFETY
ONLY WITH MANU
PARTS
AVERTISSMENT: ⚠ ET ▨
COMPOSTANTS CR
POUR MAINTENIR
DE L' APPAREIL,
PIECES RECOMMA


E
F
G
H
I
J
1
2
3
4
5
6
7
8
IC701 M62422FP
IC761 TC9260P
D751 MTZ-J6.2A
D752 MTZ-J6.2A
D753 MTZ-J6.2A
IC801 BU4094BC
IC101 BU4094BC
STB-PRE
DATA
CLK-AMP
SEL-A
ECHO2
ECHO1
PRO-ON
PROTECT
STB-AMP
OE
DELAY
DATA
AGC SW
OUT MUTE
INPUT SEL
SEL-B
GND-S
GND-D
POW-DOWN
POW-ON-OFF
P-MUTE
C301 0.022
TR221 DTA114ES
D221 1SS131
IC201 STK4142-2 (1/2)
IC201 (2/2)
TR201 2SC2458
TR202 2SC2458
TR251 2SC2458
TR252 2SC2458
TR203 2SC2458
TR253 2SC2458
DC DET
OVERLOAD DET
D231 1N4002
D232 1N4002
C290 0.022 F(Z)
C209 0.01 F(Z)
C259 0.01 F(Z)
E1 E2 E3 S1 B1 ONLY
J201 HSJ2000-01-010
PHONES
TM201 CJ-900T-060 (SMK LQR0410-0309)
SPEAKER
L
R
L281 OPW/S-8-14-SH2
L281 C291~C292 E1 E2 E3 B1 S1
JS201~JS204 U5 Y6 Y7 U8
CD MECHA
DECK MECHA
PRE CIR
LED CIR
TR101 2SA1048
TR102 2SA1048
TR103 2SA1048
TR104 2SA1048
TR123
TR124 DTC114TS
TR141 2SA1048
TR285 DTC144ES
D141 1SS131
D142 1SS131
D143 1SS131
D144 MTZ-J5.1B
D145 MTZ-J6.2A
ECT DET.

8 (POWER SUPPLY) LINE
L-CH MAIN SIGNAL LINE
MIC SIGNAL LINE
DELAYED SIGNAL LINE

WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨. ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SECURITE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL, NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN µF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN µF/WV

INDICATED VOLTAGES WERE MEASURED WHEN NO SIGNAL WAS BEING INPUT. (FUNCTION LINE MODE)

AC-420/423R/425K
MAIN
SCHEMATIC DIAGRAM

NO.5-2 C105802M A0

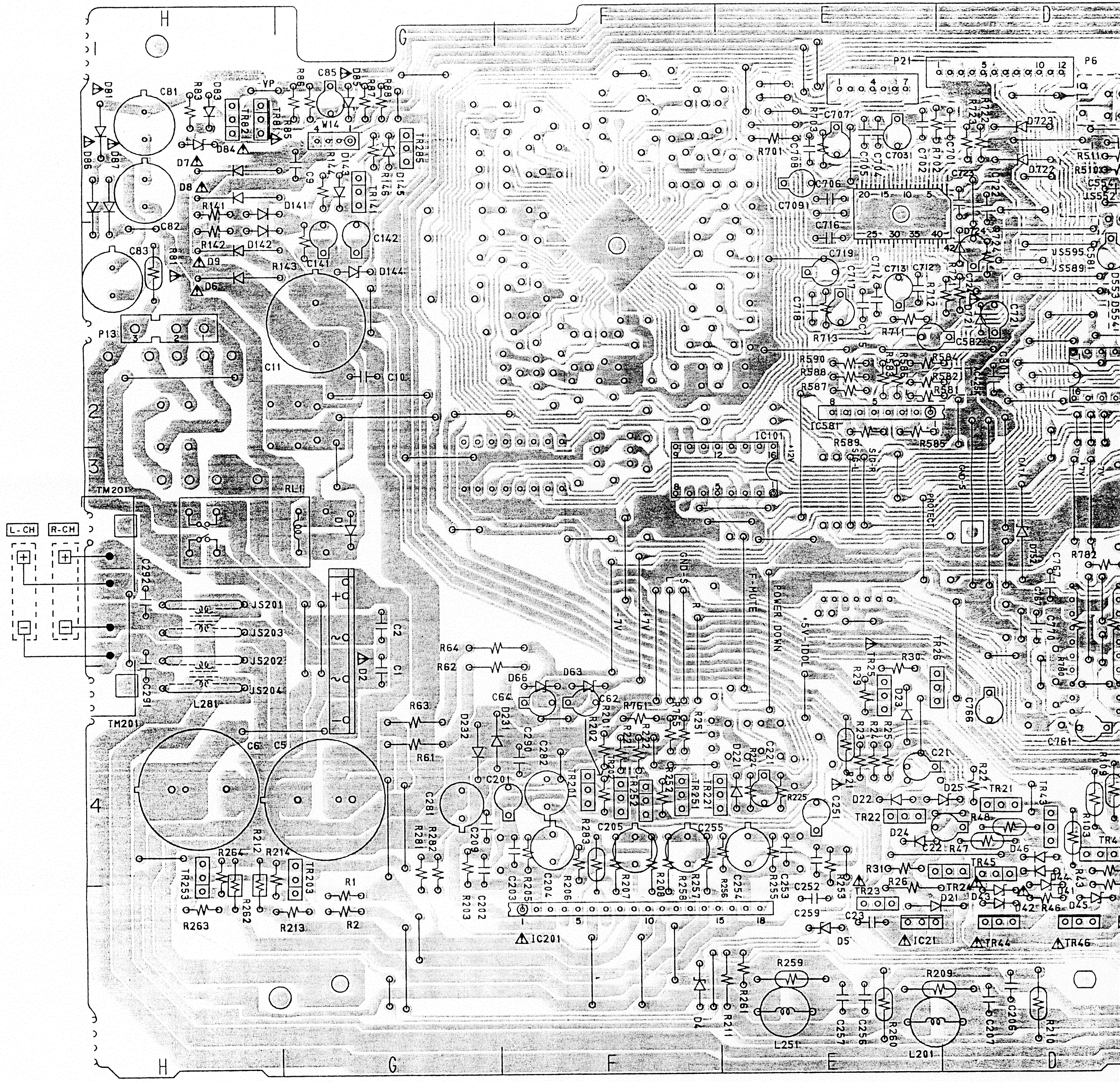
PRINCIPAL PARTS LOCATION

ICs	
IC21	E5
IC101	E,F3
IC201	F5
IC501	C1
IC581	E2
IC701	E1,2
IC761	C3,4
IC801	D2

TRANSISTORs	
TR21	D4
TR22	E4
TR23	E5
TR24	D4
TR25	E4
TR26	D,E4
TR41	D4
TR43	D4
TR44	D5
TR45	D4
TR46	D5
TR81	H1
TR82	H2
TR101	C4
TR102	D4
TR103	C4
TR104	D4
TR121	C5
TR122	C5
TR123	C5
TR124	C5
TR141	G1
TR201	F4
TR202	F4
TR203	G4,5
TR221	E,F4
TR251	F4
TR252	F4
TR253	H4,5
TR285	G1
TR551	C2
TR552	C1

CONNECTORs	
J11	B1
J201	B2,3
P6	D1
P13	H2
P21	E1

WIRE	
W14	G1


H
I
G
F
E
D
1
2
3
4
P13
P21
P6
L-CH
R-CH
TM201
RL1
C11
C6
C5
C81
C82
C83
C85
W14
TR81
TR82
TR285
TR141
IC101
IC581
IC201
IC21
C707
C703
R701
JS201
JS202
JS203
JS204
L281
C292
C291
TR253
TR203
R1
R2
R61
R62
R63
R64
D2
C1
C2
L251
L201
R259
R209
TR21
TR22
TR23
TR24
TR25
TR26
TR43
TR44
TR45
TR46
F-MUTE
POWER DOWN
PROTECT
GND-S
+5V-IDOL
12V
SIG-L
SIG-R
GND-S
DATA

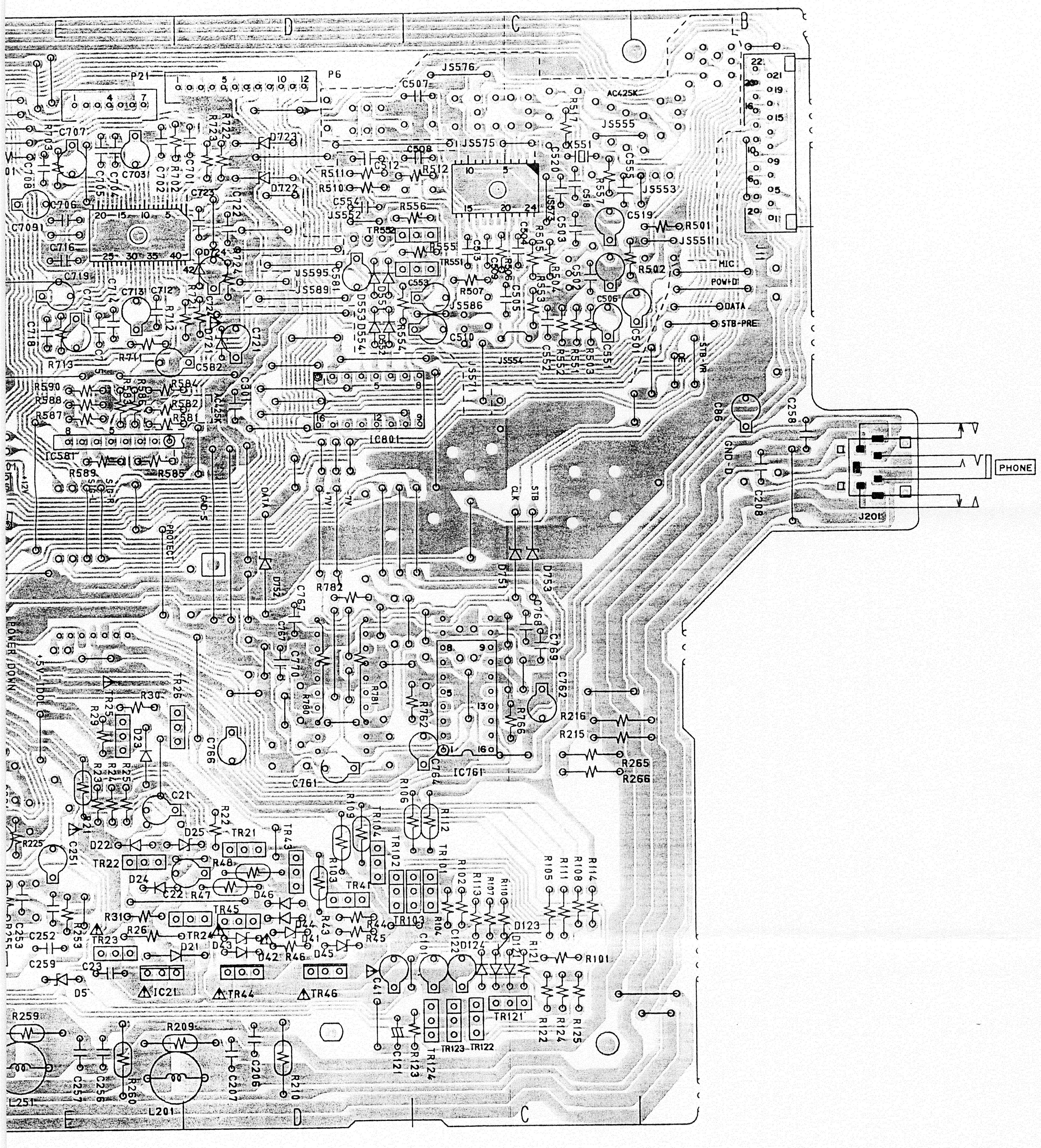
MAIN 420(A) PCB C1058A501A

CONNECTORs

J11	B1
J201	B2,3
P6	D1
P13	H2
P21	E1

WIRE

W14	G1



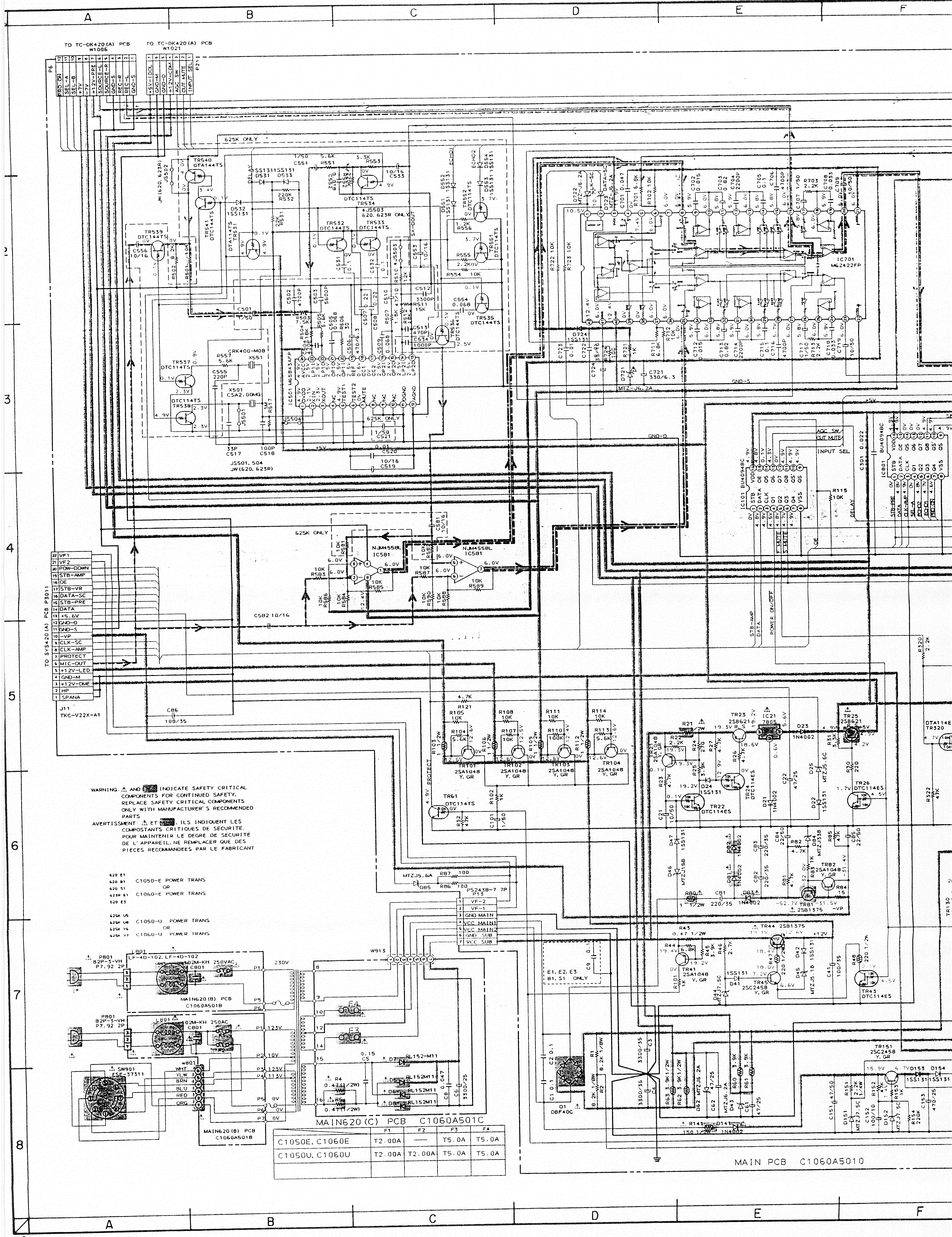
E
D
C
B
P21
P6
J11
J201
PHONE
IC581
IC801
IC761
MIC
POW+D
DATA
STB-PRE
STB
CLK
GND-D
PROTECT
AC425K
JS576
JS575
JS555
JS553
JS551
JS595
JS589
JS586
JS554
JS552
R501
R502
C258
C208
C86
R216
R215
R265
R266
TR21
TR22
TR23
TR24
TR25
TR26
TR41
TR43
TR44
TR45
TR46
TR101
TR102
TR103
TR121
TR122
TR123
TR124
IC21
D123
D124
R101
L201
L251
R209
R210
R259
C206
C207

420(A) PCB C1058A501A

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER. REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT PARTS INFORMATION.

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT


A
B
C
D
E
F
TO TC-DK420(A) PCB W1006
TO TC-DK420(A) PCB W1021
P6
P21
PRO-ON
SEL-A
SEL-B
+7V
-7V
+12V-PRE
SOURCE-L
SOURCE-R
GND-S
REC-R
REC-L
GND-S
+5V-IDOL
GND-M
GND-D
+12V-CPM
AGC SW
OUT MUTE
INPUT SEL
625K ONLY
TR540 DTA144TS
TR539 DTC144TS
TR541 DTC114TS
TR531 DTA114TS
TR532 DTC144TS
TR533 DTC144TS
TR534 DTC114TS
TR535 DTC144TS
TR536 DTC114TS
TR537 DTC114TS
TR538 DTC114TS
TR551 DTC114TS
TR552 DTC114TS
IC501 M65843AFP
CRK400-M08
X551
X501 CSA2.00MG
JS501, 504 JW(620, 623R)
JS502 JW(620, 623R)
JS503 620, 623R ONLY
ECHO1
ECHO2
SX-DOUT
IC701 M62422FP
D721 MTZ-J6.2A
D722 MTZ-J6.2A
D723 MTZ-J6.2A
D724 1SS131
GND-S
GND-D
+5V
IC101 BU4094BC
IC801 BU4094BC
AGC SW
OUT MUTE
INPUT SEL
DELAY
STB-AMP
DATA
POWER ON/OFF
IC581 NJM4558L
C582 10/16
TO SYS420(A) PCB P3011
VF1
VF2
POW-DOWN
STB-AMP
OE
STB-VR
DATA-SC
STB-PRE
DATA
+5.6V
GND-D
GND-S
-VP
CLK-SC
CLK-AMP
PROTECT
MIC-OUT
+12V-LED
GND-M
+12V-OME
HP
SPANA
J11 TKC-V22X-A1
C86 100/35
TR101 2SA1048 Y. GR
TR102 2SA1048 Y. GR
TR103 2SA1048 Y. GR
TR104 2SA1048 Y. GR
TR61 DTC114TS
PROTECT
TR21 2SA1048 Y. GR
TR22 DTC114ES
TR23 2SB621
TR24 DTC114ES
TR25 2SB621
TR26 DTC114ES
IC21 7805
D23 1N4002
TR81 2SB1375
TR82 2SA1048 Y. GR
TR41 2SA1048 Y. GR
TR43 DTC114ES
TR44 2SB1375
TR45 2SC2458 Y. GR
TR151 2SC2458 Y. GR
DTA114E TR320
D85 MTZJ5.6A
PS2438-7 7P P13
VF-2
VF-1
GND MAIN
VCC MAIN1
VCC MAIN
GND SUB
VCC SUB
E1, E2, E3 B1, S1 ONLY
P801 B2P-3-VH P7.92 2P
L801 LF-40-102, LF-4D-102
102M-KH 250VAC C801
MAIN620(B) PCB C1060A501B
230V
123V
113V
10V
0V
W913
SW901 ESE-37311
W801
WHT
YLW
BRN
BLU
RED
ORG
F4
F3
D7 RL152-M11
D5 RL152M11
D6 RL152M11
D8 RL152M11
R4 0.47(1/2W)
R5 0.47(1/2W)
C6 3300/25
D1 DBF40C
D141 1N4002
MAIN620(C) PCB C1060A501C
MAIN PCB C1060A5010

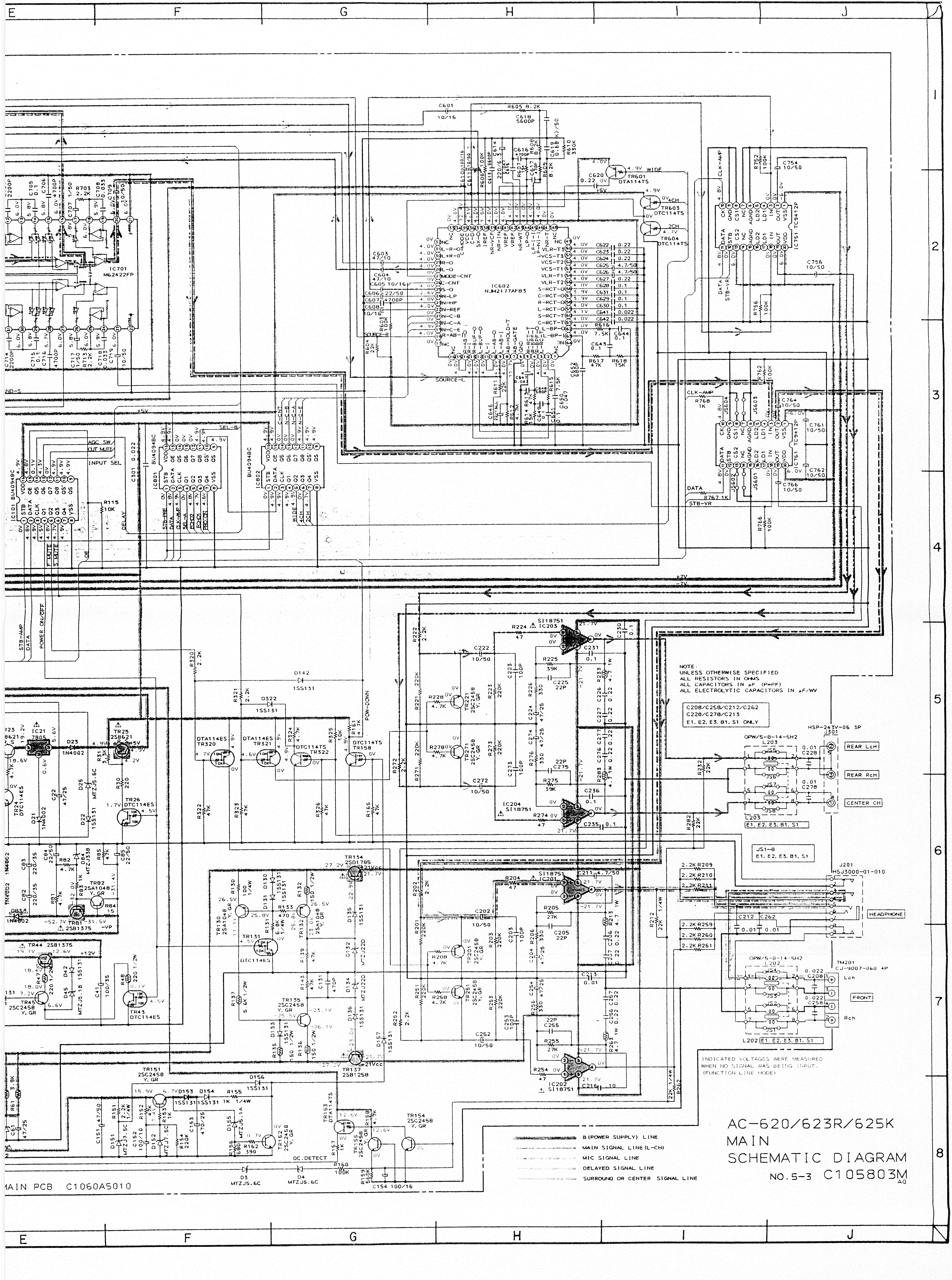
WARNING: ⚠ AND ▨ INDICATE SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSMENT: ⚠ ET ▨. ILS INDIQUENT LES COMPOSTANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRE DE SÉCURITÉ DE L'APPAREIL. NE REMPLACER QUE DES PIECES RECOMMANDEES PAR LE FABRICANT

620 E1
620 B1 C1050-E POWER TRANS
620 S1 OR
623R E1 C1060-E POWER TRANS
620 E3

625K US
625K U8 C1050-U POWER TRANS
625K Y6 OR
625K Y7 C1060-U POWER TRANS

	F1	F2	F3	F4
C1050E. C1060E	T2.00A	—	T5.0A	T5.0A
C1050U. C1060U	T2.00A	T2.00A	T5.0A	T5.0A


E
F
G
H
I
J
1
2
3
4
5
6
7
8
IC701 M62422FP
IC602 NJM2177AFB3
IC751 TC9412P
IC761 TC9412P
IC101 BU4094BC
IC801 BU4094BC
IC802 BU4094BC
TR601 DTA114TS
TR603 DTC114TS
TR604 DTC114TS
WIDE
4CH
2CH
CLK-AMP
DATA
STB-VR
SOURCE-R
SOURCE-L
AGC SW
OUT MUTE
INPUT SEL
SEL-B
DELAY
F.MUTE
S.MUTE
STB-AMP
POWER ON/OFF
POW-DOWN
+7V
-7V
+5V
IC203 SI18751
IC204 SI18751
IC201 SI18751
IC202 SI18751
TR221 2SC2458 Y, GR
TR271 2SC2458 Y, GR
TR201 2SC2458 Y, GR
TR251 2SC2458 Y, GR
IC21 7805
TR25 2SB621
TR26 DTC114ES
TR24 DTC114ES
TR81 2SB1375
TR82 2SA1048 Y, GR
TR44 2SB1375
TR45 2SC2458 Y, GR
TR43 DTC114ES
TR320 DTA114ES
TR321 DTA114ES
TR322 DTC114TS
TR158 DTC114TS
TR130 2SA1048 Y, GR
TR131 DTC114ES
TR132 2SC2458 Y, GR
TR134 2SD1785
TR135 2SC2458 Y, GR
TR137 2SB1258
TR151 2SC2458 Y, GR
TR152 2SC2458 Y, GR
TR153 DTA114TS
TR154 2SC2458 Y, GR
TR155 2SC2458 Y, GR
DC.DETECT
HSP-243V-06 3P
J301
REAR LcH
REAR RcH
CENTER CH
OPW/5-8-14-5H2
L203
E1, E2, E3, B1, S1
JS1-8
E1, E2, E3, B1, S1
J201
HSJ3000-01-010
HEADPHONE
OPW/5-8-14-5H2
L202
TM201
CJ-9007-060 4P
Lch
FRONT
Rch
L202 E1, E2, E3, B1, S1
C208/C258/C212/C262
C228/C278/C213
E1, E2, E3, B1, S1 ONLY

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

INDICATED VOLTAGES WERE MEASURED
WHEN NO SIGNAL WAS BEING INPUT.
(FUNCTION LINE MODE)

B(POWER SUPPLY) LINE
MAIN SIGNAL LINE(L-CH)
MIC SIGNAL LINE
DELAYED SIGNAL LINE
SURROUND OR CENTER SIGNAL LINE

AIN PCB C1060A5010

AC-620/623R/625K
MAIN
SCHEMATIC DIAGRAM

NO.5-3 C105803M
A0

PRINCIPAL PARTS LOCATION

ICs

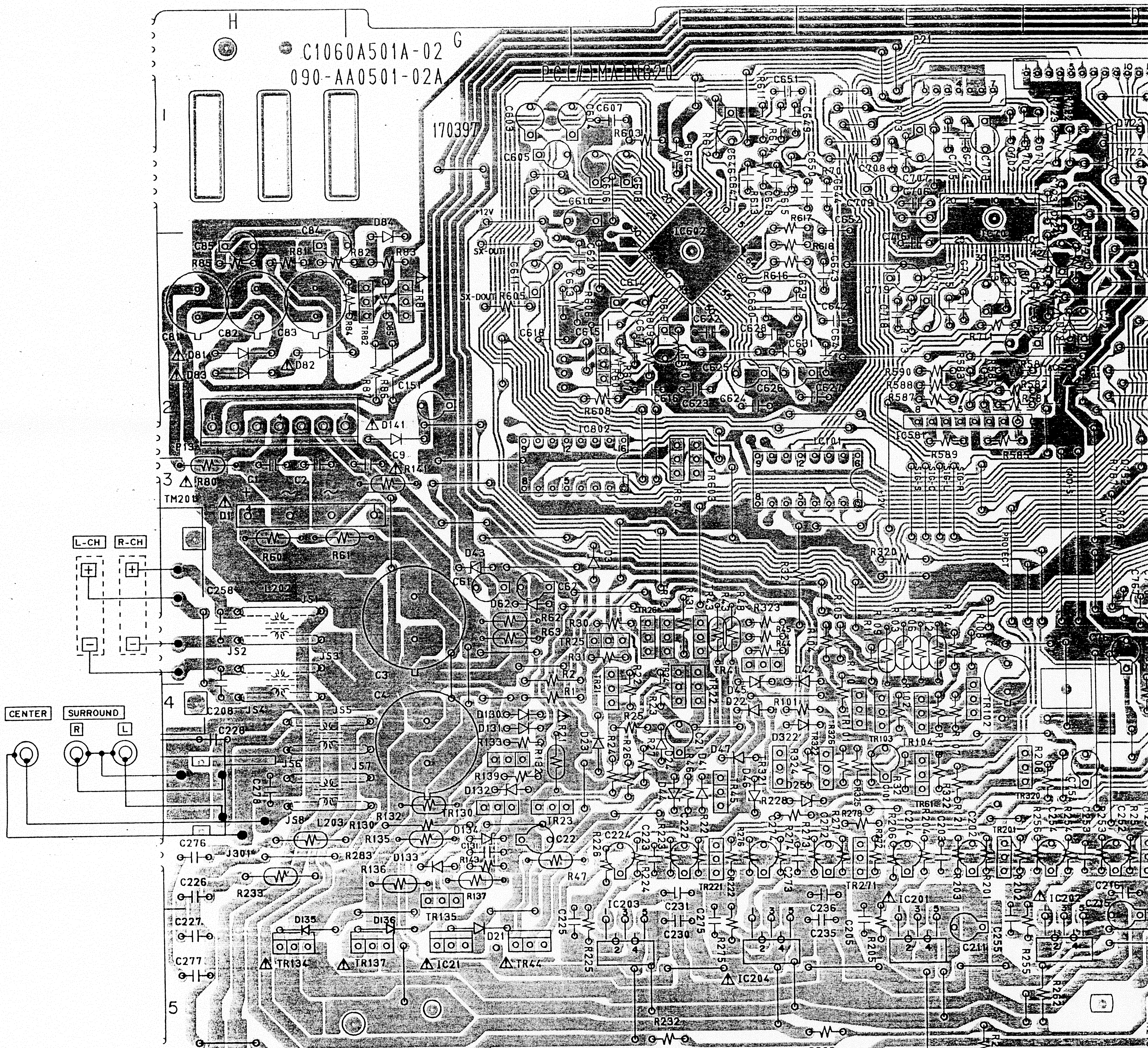
IC21	G5
IC101	E,F3
IC201	E5
IC202	D5
IC203	F5
IC204	F5
IC501	C1
IC581	E2
IC602	F2
IC701	E1
IC751	D3,4
IC761	C3,4
IC801	D2
IC802	F,G3

TRANSISTORs

TR21	F4
TR22	F4
TR23	G4
TR24	F4
TR25	F3
TR26	F3
TR41	F3
TR43	F3
TR44	G5
TR45	F4
TR61	E4
TR81	G2
TR82	G2
TR101	E4
TR102	E4
TR103	E4
TR104	E4
TR130	G4
TR131	F3
TR132	G4
TR134	H5
TR135	G4
TR137	G5
TR151	C5
TR152	C5
TR153	C,D4
TR154	D5
TR155	D5
TR158	C5
TR201	E4
TR221	F4
TR251	D4
TR271	E4
TR320	E4
TR321	F4
TR322	E4
TR531	C1
TR532	D1
TR533	D1
TR534	C2
TR535	D1,2
TR536	C2
TR537	B1
TR538	C1
TR539	B1
TR540	B1
TR541	B1
TR551	C2
TR552	C1
TR601	F2
TR603	F3
TR604	F3

CONNECTORs

J11	B1
J201	B2,3
J301	H4
P6	D1
P13	H2
P21	E1

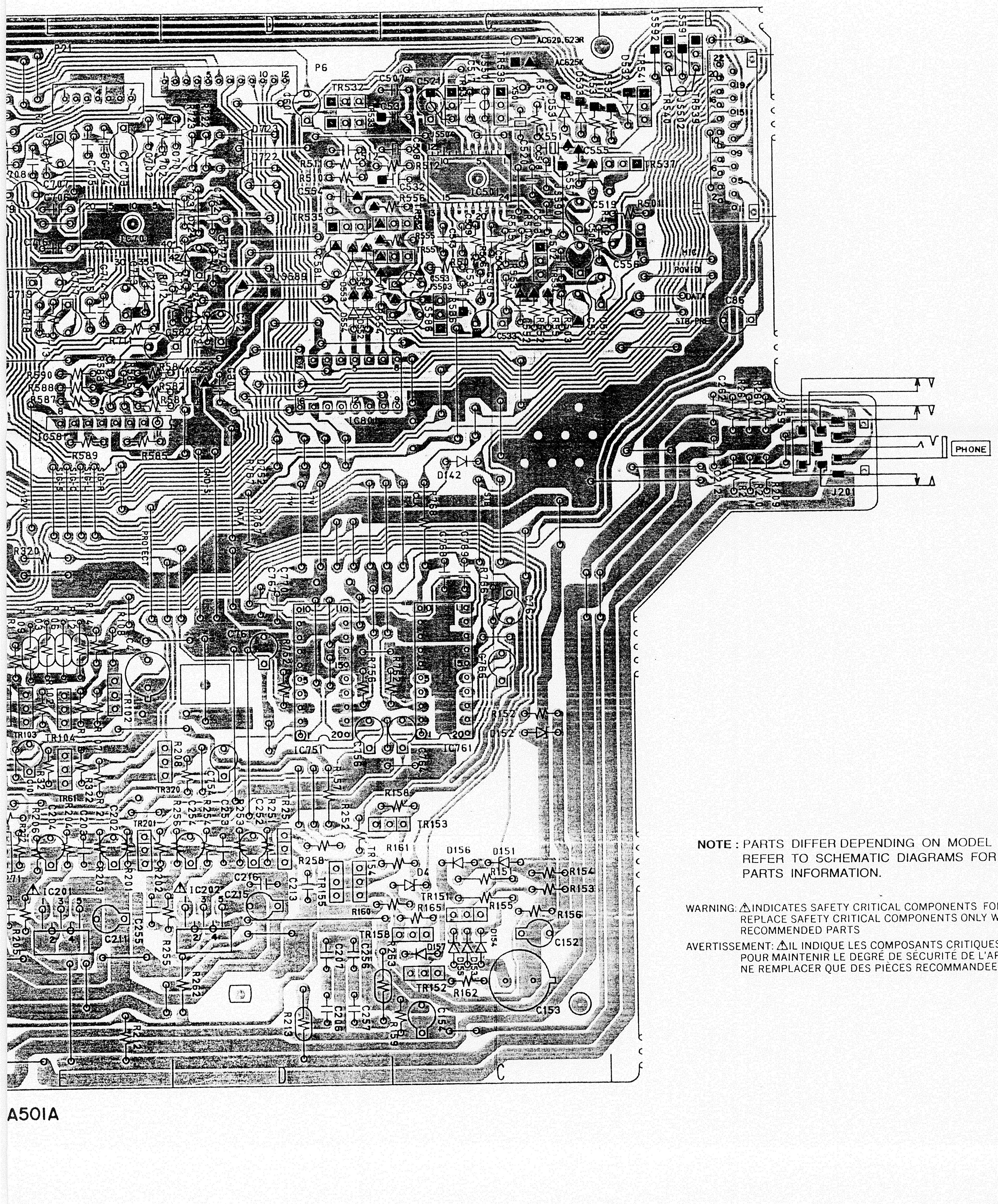

C1060A501A-02
090-AA0501-02A
170397
PCB/E/MAIN620
H
G
F
1
2
3
4
5
L-CH
R-CH
CENTER
SURROUND
R
L
+
−
IC602
IC802
IC701
IC581
IC21
IC201
IC202
IC203
IC204
TR81
TR82
TR130
TR134
TR135
TR137
TR44
TR201
TR221
TR271
TR320
TR103
TR104
TR102
TR23
TR25
J301
JS1
JS2
JS3
JS4
JS5
JS6
JS7
JS8
TM201
P21
+12V
SX-OUT
SX-DOUT
PROTECT

MAIN620(A) PCB   C1060A501A

534	C2
535	D1,2
536	C2
537	B1
538	C1
539	B1
540	B1
541	B1
551	C2
552	C1
601	F2
603	F3
604	F3

CONNECTORs

J11	B1
J201	B2,3
J301	H4
P6	D1
P13	H2
P21	E1



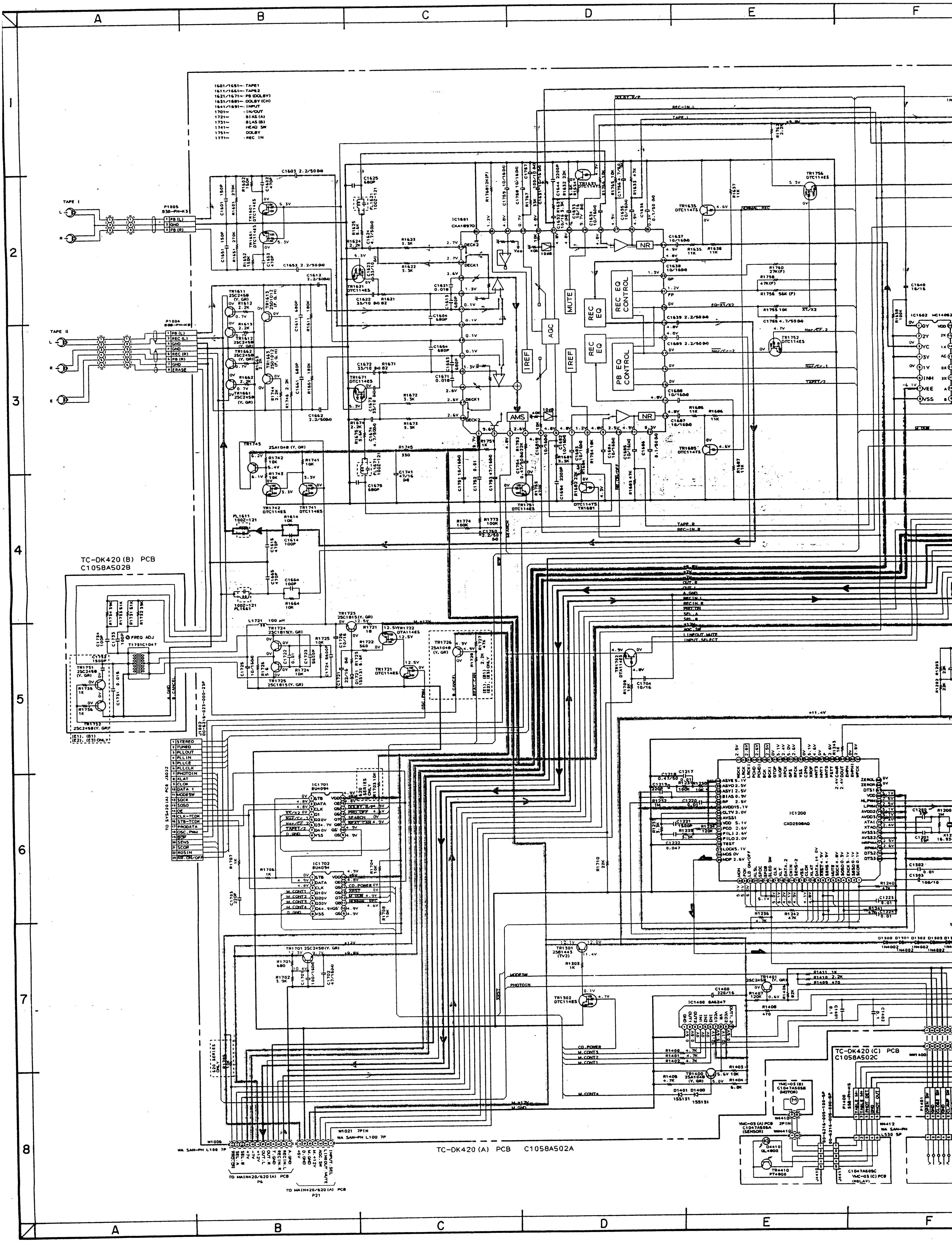
P21
P6
AC620,623R
AC625K
TR537
TR535
IC501
IC701
IC581
IC801
IC751
IC761
IC201
IC202
MIC
POWER
DATA
STB-PRE
PROTECT
D142
R320
TR102
TR103
TR104
TR153
TR151
TR152
TR158
TR155
C152
C153
J201
PHONE

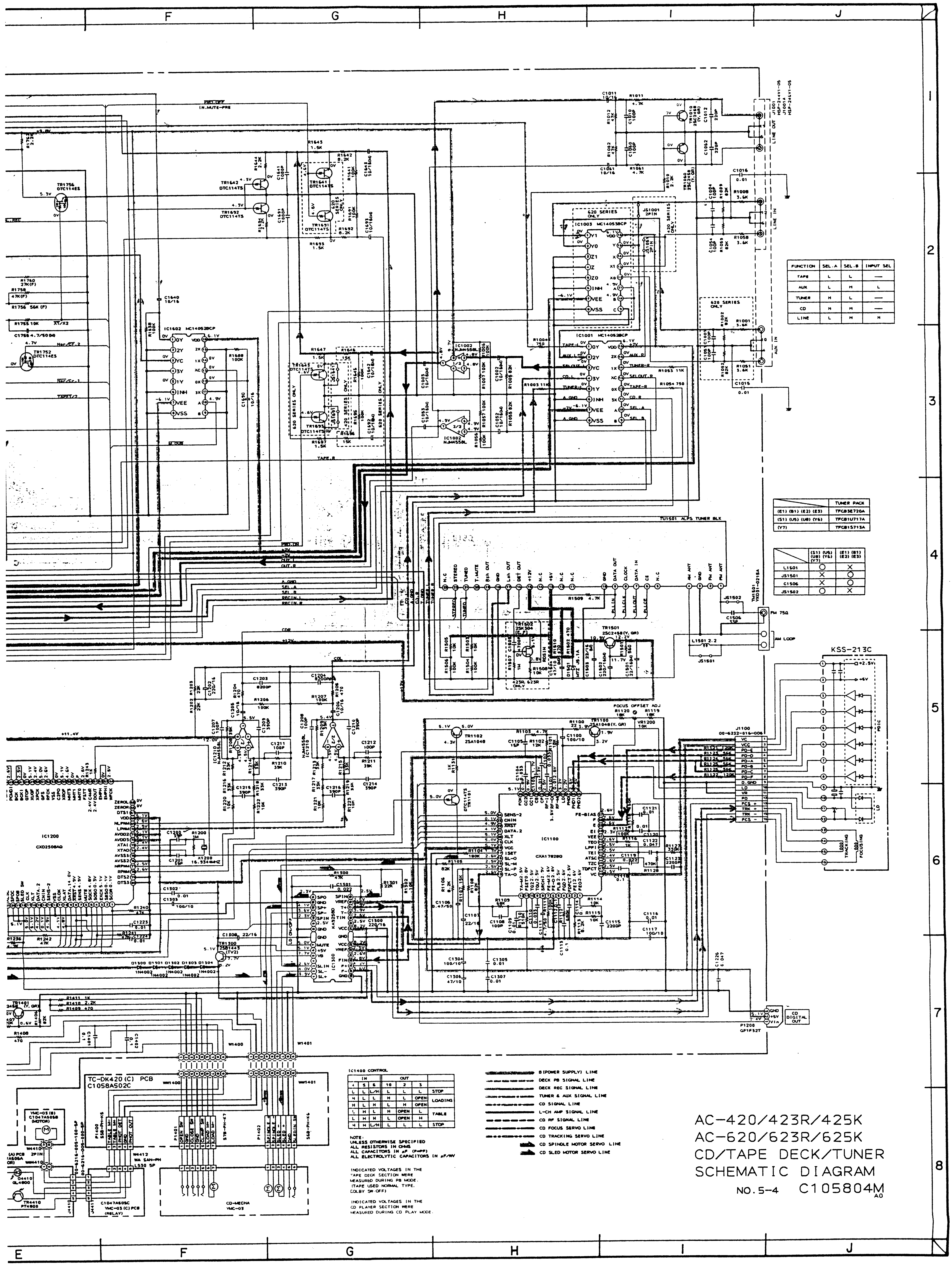
A501A

NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS FOR CONTINUED SAFETY.
REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S
RECOMMENDED PARTS

AVERTISSEMENT: ⚠IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ.
POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL,
NE REMPLACER QUE DES PIÈCES RECOMMANDEES PAR LE FABRICANT

A
B
C
D
E
F
1
2
3
4
5
6
7
8
1601/1651~: TAPE1
1611/1661~: TAPE2
1621/1671~: PB (DOLBY)
1631/1681~: DOLBY (CH)
1641/1691~: INPUT
1701~ : IN/OUT
1721~ : BIAS (A)
1731~ : BIAS (B)
1741~ HEAD SW
1751~ DOLBY
1771~ : REC IN
TAPE I
TAPE II
L
R
E
P1005
P1004
PB (L)
GND
PB (R)
REC (L)
REC (R)
ERASE
IC1601
CXA1897Q
DECK2
DECK1
AMS
AGC
IREF
MUTE
REC EQ
REC EQ CONTROL
PB EQ CONTROL
NR
10dB
DOLBY B/P
REC-IN-L
TAPE L
TAPE R
REC-IN-R
NORMAL REC
Nor/Cr-2
Nor/Cr-1
TAPE1/2
FQ-X1/X2
X1/X2
IC1602 MC14052
TC-DK420 (B) PCB
C1058A502B
FREQ ADJ
T1751C1047
(E1), (B1)
(E2), (E3) ONLY
TO SYS420 (A) PCB J3022
J1002
00-6216-023-000-23P
1 STEREO
2 TUNED
3 PLLOUT
4 PLLIN
5 PLLCE
6 PLLCLK
7 PHOTOIN
8 XLAT
9 CLOK
10 DATA.1
11 MODESW
12 SOCK
13 SOSO
14 OE
15 CLK-TCDK
16 STB-TCDK
17 PRODATA
18 OSC.PWM
19 BOF
20 SENS
21 SCOR
22 ROSIN
23 NR.ON/OFF
A.GND
B.CANCEL
OSC.PWM
BEAT.CAN
IC1701
BU4094
IC1702
BU4094
M.CONT1
M.CONT2
M.CONT3
M.CONT4
CD.POWER
ZERST
NORMAL REC
SEARCH
BEAT.CAN
PRO.OFF
LINEOUT MUTE
INPUT SELECT
AGC SW
A.GND
REC IN L
REC IN R
OUT L
OUT R
SEL A
SEL B
IC1200
CXD2500AQ
IC1400 BA6247
TC-DK420 (C) PCB
C1058A502C
YMC-03 (B)
C1047A505B
(MOTOR)
YMC-03 (A) PCB
C1047A505A
(SENSOR)
C1047A505C
YMC-03 (C) PCB
(RELAY)
MODESW
PHOTOIN
TR1301
TR1302
TR1400
TR1401
TR1701
W1006
WA SAN-PH L100 7P
W1021 7PIN
WA SAN-PH L100 7P
TO MAIN420/620 (A) PCB
P6
TO MAIN420/620 (A) PCB
P21
TC-DK420 (A) PCB C1058A502A
620 SERIES ONLY
M.+12V
M.GND
+11.4V
+9.8V
+12V


F
G
H
I
J
E
1
2
3
4
5
6
7
8
IC1602 MC14052BCP
IC1003 MC14053BCP
IC1001 MC14052BCP
IC1002 NJM4558L
620 SERIES ONLY
420 SERIES ONLY
LINE OUT
LINE IN
AUX IN
TU1501 ALPS TUNER BLK
FM 75Ω
AM LOOP
TM1501 YKD31-0215A
IC1200 CXD2500AQ
IC1100 CXA1782BQ
IC1300 KA9258D
KSS-213C
FOCUS OFFSET ADJ
J1100
P1200 GP1F52T
CD DIGITAL OUT
TC-DK420 (C) PCB C1058A502C
CD-MECHA YMC-03
W1400
W1401
B (POWER SUPPLY) LINE
DECK PB SIGNAL LINE
DECK REC SIGNAL LINE
TUNER & AUX SIGNAL LINE
CD SIGNAL LINE
L-CH AMP SIGNAL LINE
CD RF SIGNAL LINE
CD FOCUS SERVO LINE
CD TRACKING SERVO LINE
CD SPINDLE MOTOR SERVO LINE
CD SLED MOTOR SERVO LINE

FUNCTION	SEL.A	SEL.B	INPUT SEL
TAPE	L	L	—
AUX	L	H	L
TUNER	H	L	—
CD	H	H	—
LINE	L	H	H

	TUNER PACK
(E1) (B1) (E2) (E3)	TFCB3E720A
(S1) (U5) (U8) (Y6)	TFCB1U717A
(Y7)	TFCB1S713A

	(S1) (U5) (U8) (Y6) (Y7)	(E1) (B1) (E2) (E3)
L1501	○	X
JS1501	X	○
C1506	X	○
JS1502	○	X

IC1400 CONTROL

IN			OUT			
4	5	6	10	2	3	
L	L	L/H	L	L	L	STOP
H	L	L	H	L	OPEN	LOADING
H	L	H	L	H	OPEN	
L	H	L	H	OPEN	L	TABLE
L	H	H	L	OPEN	H	
H	H	L/H	L	L	L	STOP

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

INDICATED VOLTAGES IN THE TAPE DECK SECTION WERE MEASURED DURING PB MODE. (TAPE USED NORMAL TYPE, DOLBY SW OFF)

INDICATED VOLTAGES IN THE CD PLAYER SECTION WERE MEASURED DURING CD PLAY MODE.

AC-420/423R/425K
AC-620/623R/625K
CD/TAPE DECK/TUNER
SCHEMATIC DIAGRAM
NO.5-4 C105804M A0

PRINCIPAL PARTS LOCATION

ICs

IC1001	C3
IC1002	D4
IC1003	B,C3,4
IC1100	B2
IC1200	D2
IC1210	D3
IC1300	B,C3
IC1400	A1
IC1601	E5
IC1602	F4
IC1701	F1
IC1702	F1

TRANSISTORs

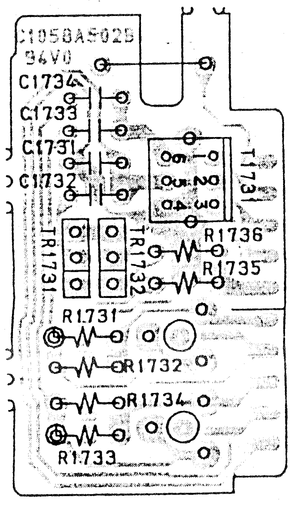
TR1010	B4
TR1060	C4
TR1100	A,B3
TR1101	B3
TR1102	B3
TR1300	C3
TR1301	D1
TR1302	D1
TR1400	B1
TR1401	C2
TR1501	B6
TR1502	A6
TR1601	E6
TR1611	D6
TR1612	D6
TR1613	D6
TR1621	F6
TR1631	F5
TR1635	F5
TR1641	F5
TR1642	F5
TR1643	F5
TR1651	E6
TR1661	D6
TR1662	D6
TR1663	D6
TR1671	E6
TR1681	D5
TR1685	F5
TR1691	D5
TR1692	D5
TR1693	D5
TR1701	F1
TR1702	F3
TR1721	F2
TR1722	F2
TR1723	C6
TR1724	C6
TR1725	C6
TR1726	F3
TR1741	E6
TR1742	E6
TR1743	D,E6
TR1751	D5
TR1752	F5
TR1756	C5

CONNECTORs

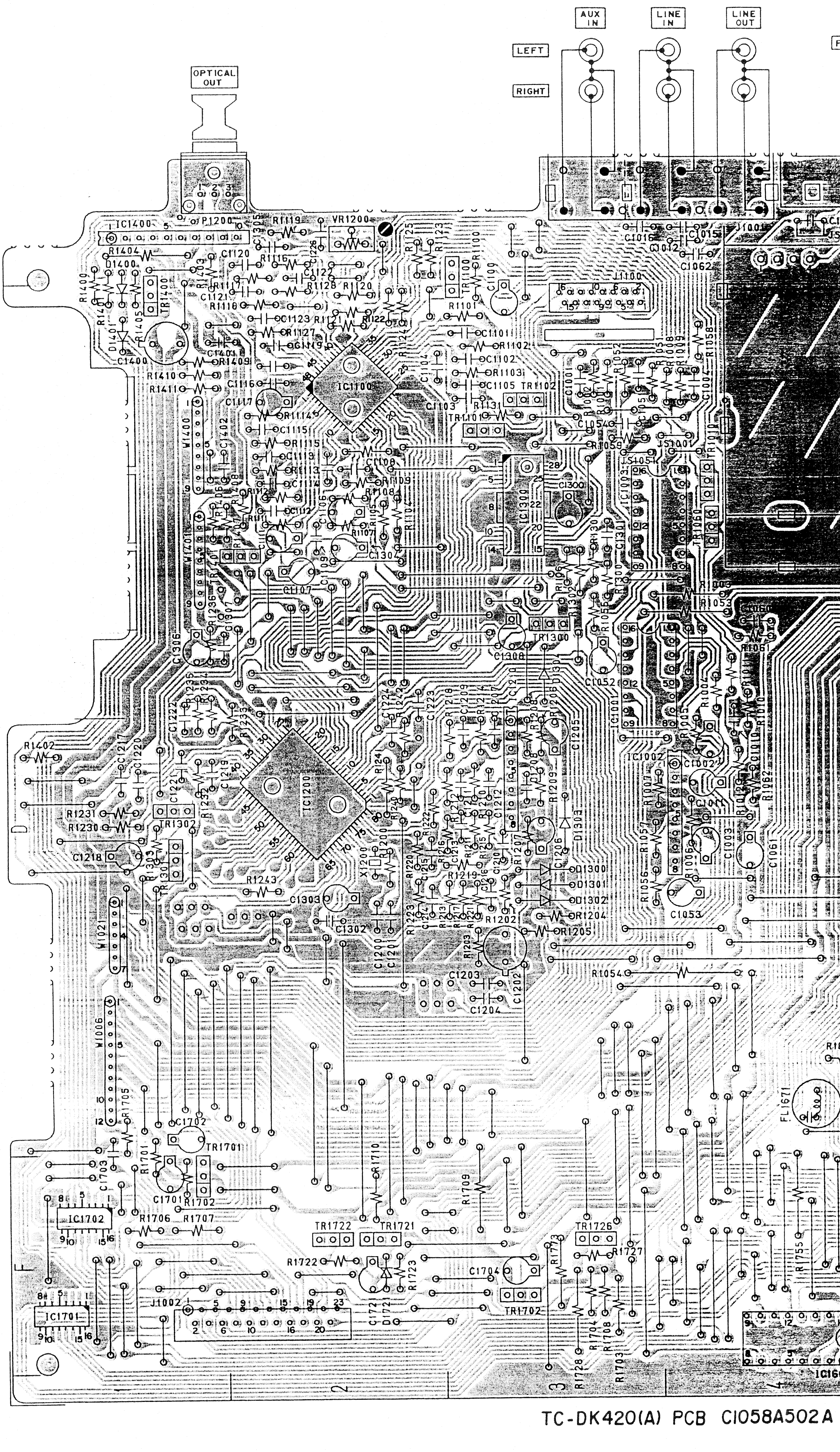
J1001	A3,4
J1002	F1,2
J1100	B3
P1004	D6
P1005	E6
P1200	A1,2

WIRES

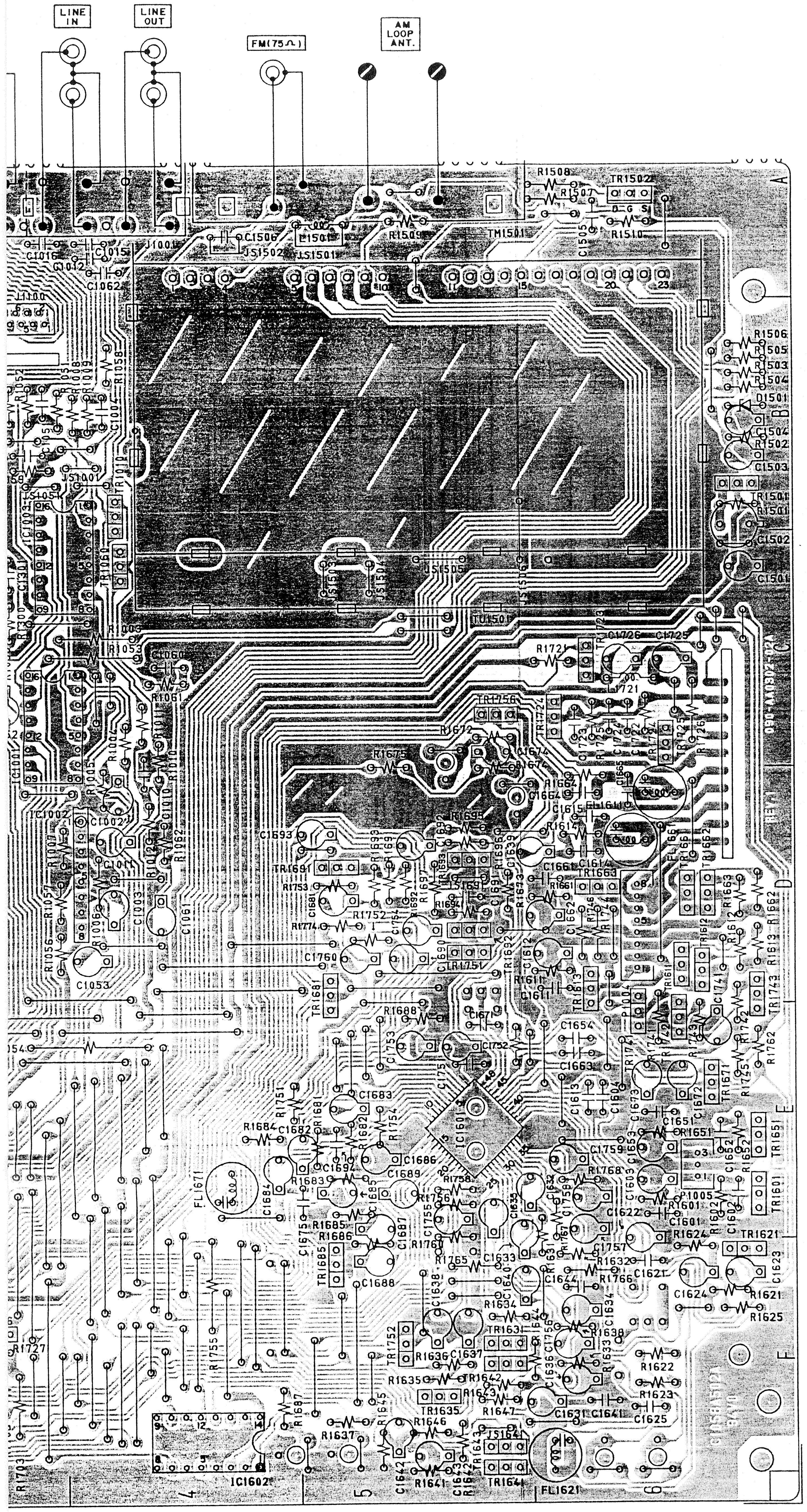
W1006	E1
W1201	D,E1
W1400	B1
W1401	C1


C1058A502B
94V0
C1734
C1733
C1731
C1732
T1731
TR1731
TR1732
R1736
R1735
R1731
R1732
R1734
R1733

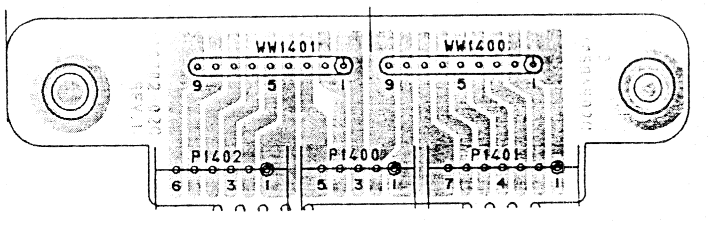
TC-DK420(B) PCB
C1058A502B


OPTICAL OUT
AUX IN
LINE IN
LINE OUT
LEFT
RIGHT
IC1400
P1200
VR1200
IC1100
IC1200
IC1300
IC1001
IC1002
IC1003
J1100
J1001
W1400
W1401
W1201
W1006
TR1100
TR1101
TR1102
TR1300
TR1301
TR1302
TR1400
TR1701
TR1702
TR1721
TR1722
TR1726
IC1701
IC1702
J1002
FL1671
D
F
2
3
4

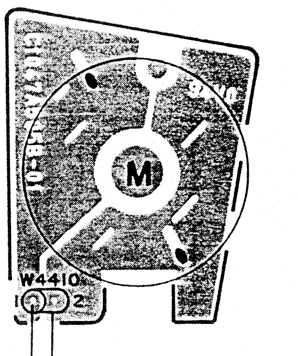
TC-DK420(A) PCB C1058A502A


LINE IN
LINE OUT
FM(75Ω)
AM LOOP ANT.
IC1601
IC1602
FL1621
FL1671
TU1501
TM1501
TR1502
TR1501

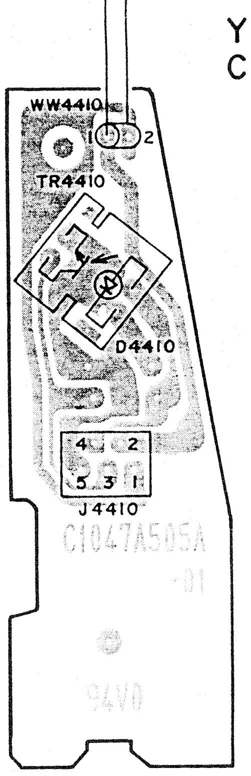
420(A) PCB C1058A502A


WW1401
WW1400
P1402
P1400
P1401

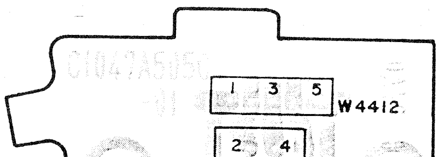
TC-DK420(C) PCB
C1058A502C



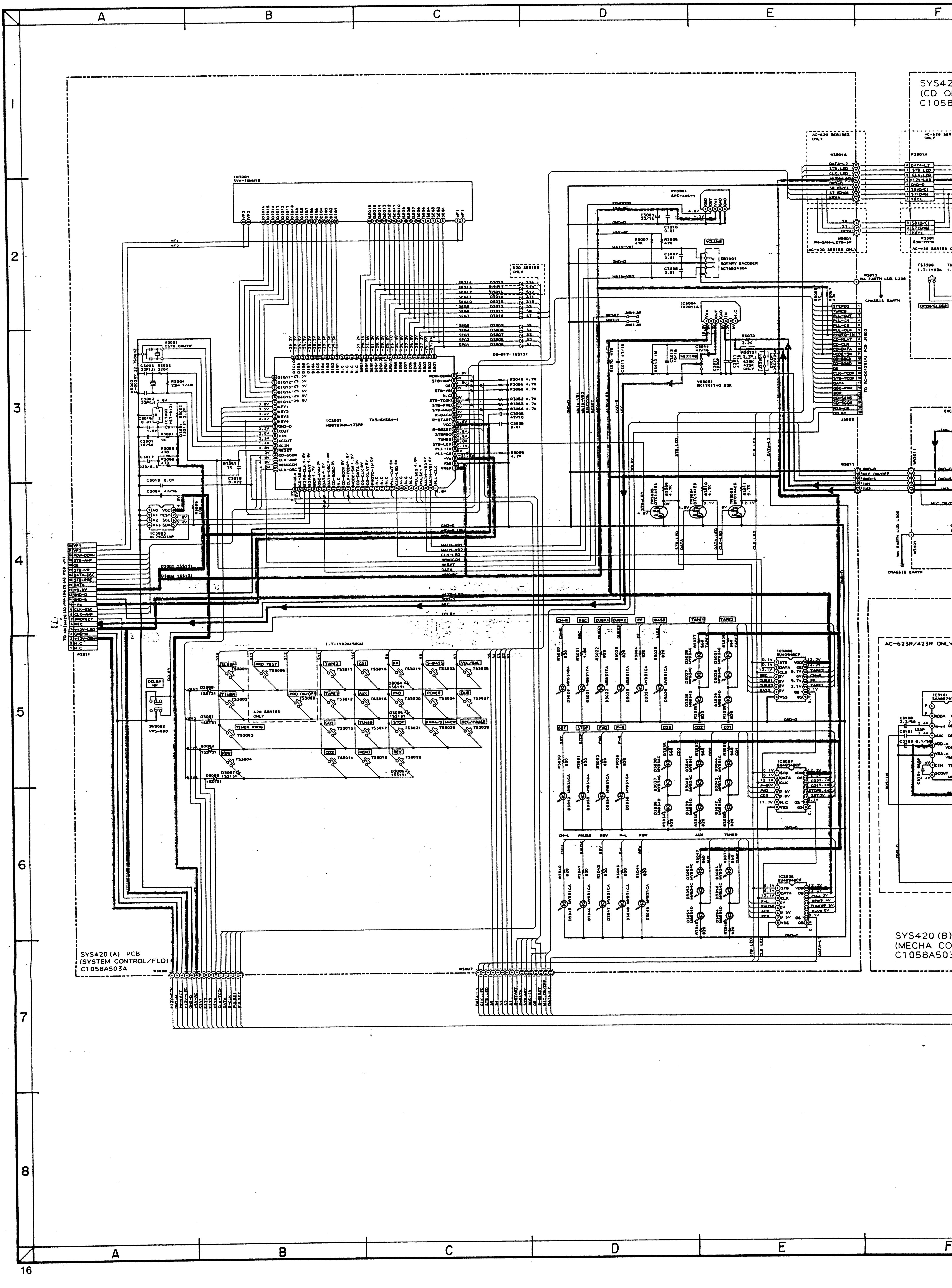
YMC03(B) PCB
C1047A505B

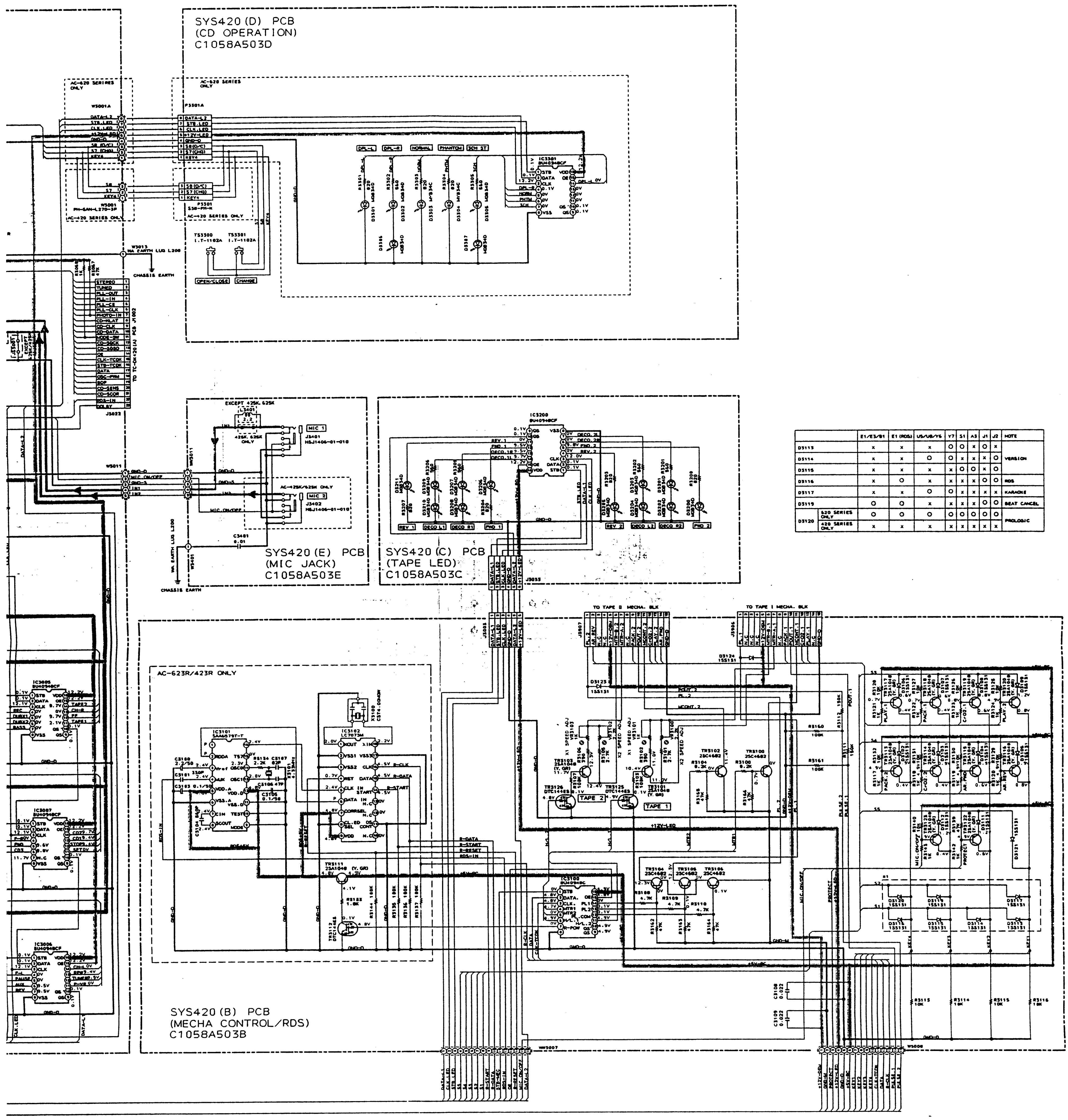

WW4410
TR4410
D4410
J4410
C1047A505A
-01

YMC03(A) PCB
C1047A505A


W4412
J4411

YMC03(C) PCB
C1047A505C


SYS420 (A) PCB
(SYSTEM CONTROL/FLD)
C1058A503A
SYS420 (B)
(MECHA CO
C1058A503
SYS42
(CD O
C1058
AC-623R/423R ONLY
AC-620 SERIES ONLY
AC-420 SERIES ONLY
620 SERIES ONLY
IC3001
M38197MA-173FP
TXS-SYS64-1
IC3003
XL24C01AP
IC3004
TA2011S
PH3001
SPS-446-1
SW3001
ROTARY ENCODER
VOLUME
VR3001
RK11K1140 82K
MIXING
IC3005
BU4094BCF
IC3006
BU4094BCF
IC3007
BU4094BCF
X3001
CST8.00MTW
SW3002
VPS-600
DOLBY NR
TO MAIN420 (A)/MAIN620 (A) PCB J11
P3011
W3008
W3007
W3011
W3013
NA EARTH LUG L200
CHASSIS EARTH
J3022
TO TC-DK120(A) PCB J1002
A
B
C
D
E
F
1
2
3
4
5
6
7
8


SYS420(D) PCB
(CD OPERATION)
C1058A503D
AC-420 SERIES ONLY
AC-620 SERIES ONLY
OPEN/CLOSE
CHANGE
DPL-L
DPL-R
NORMAL
PHANTOM
3CH ST
IC3301
BU4094BCF
SYS420(E) PCB
(MIC JACK)
C1058A503E
MIC 1
MIC 2
CHASSIS EARTH
SYS420(C) PCB
(TAPE LED)
C1058A503C
IC3200
BU4094BCF
REV 1
DECO L1
DECO R1
PHD 1
REV 2
DECO L2
DECO R2
PHD 2
TO TAPE II MECHA. BLK
TO TAPE I MECHA. BLK
AC-623R/423R ONLY
IC3101
IC3102
LC7073M
IC3100
BU4094BC
TAPE 2
TAPE 1
SYS420(B) PCB
(MECHA CONTROL/RDS)
C1058A503B
IC3005
IC3007
IC3006
BU4094BCF
E
F
G
H
I
J
1
2
3
4
5
6
7

		E1/E3/B1	E1 (RDS)	US/UB/Y6	Y7	S1	A3	J1	J2	NOTE
D3113		x	x	x	O	O	x	O	x	VERSION
D3114		x	x	O	O	x	x	x	O	
D3115		x	x	x	x	O	O	x	O	
D3116		x	O	x	x	x	x	O	O	RDS
D3117		x	x	O	O	x	x	x	x	KARAOKE
D3119		O	O	x	x	x	x	O	O	BEAT CANCEL
D3120	620 SERIES ONLY	O	O	O	O	O	O	O	O	PROLOGIC
	420 SERIES ONLY	x	x	x	x	x	x	x	x	

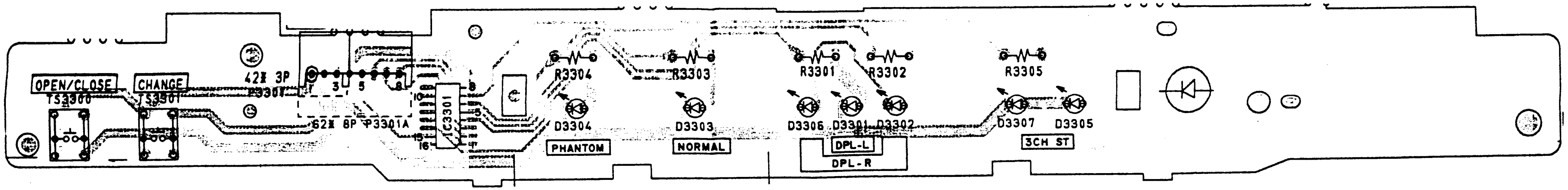
B(POWER SUPPLY) LINE
MIC SIGNAL LINE

INDICATED VOLTAGES WERE MEASURED DURING PB MODE. (TAPE USED: NORMAL TYPE. DOLBY SW: OFF)

NOTE:
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS
ALL CAPACITORS IN μF (P=PF)
ALL ELECTROLYTIC CAPACITORS IN μF/WV

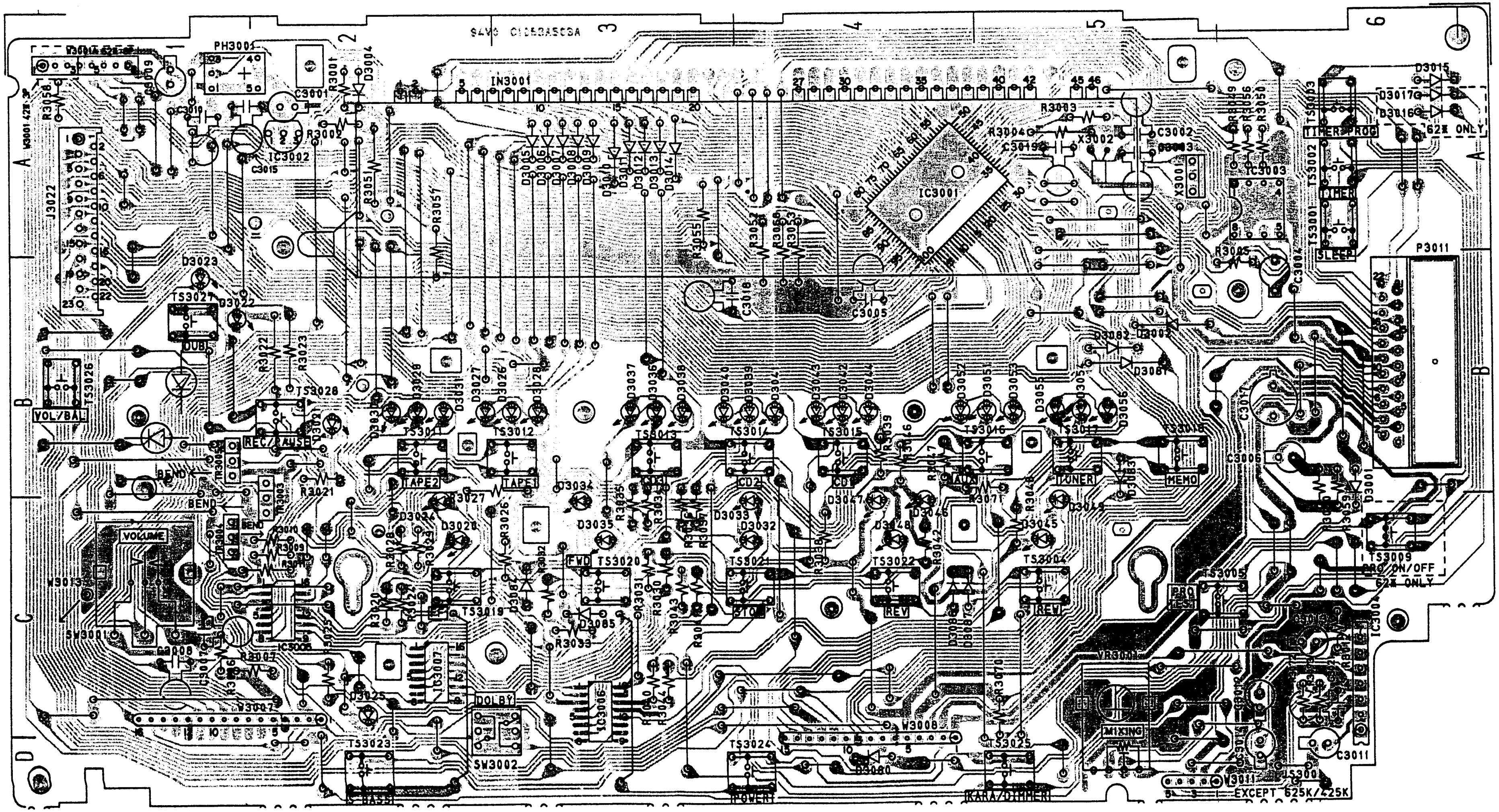
AC-420/423R/425K
AC-620/623R/625K
SYSCON/MECHA.DRIVE
SCHEMATIC DIAGRAM
NO.5-5 C105805M A0

8


OPEN/CLOSE
CHANGE
TS3300
TS3301
42* 3P
P3301
62* 8P P3301A
IC3301
R3304
R3303
R3301
R3302
R3305
D3304
D3303
D3306
D3301
D3302
D3307
D3305
PHANTOM
NORMAL
DPL-L
DPL-R
3CH ST

*NOTE
42*: 420 SERIES
62*: 620 SERIES

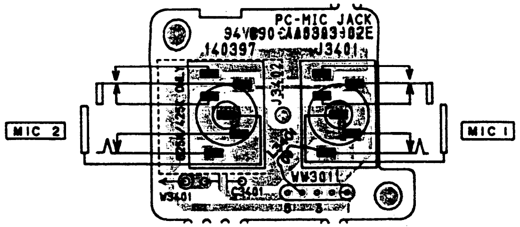
SYS420(D) PCB C1058A503D


PH3001
IN3001
IC3001
IC3002
IC3003
C3001
C3002
C3005
X3001
X3002
J3022
P3011
D3015
D3016
D3017
62* ONLY
TIMER
PROG
SLEEP
TS3001
TS3002
TS3003
VOL/BAL
DUB
REC/PAUSE
BEND
VOLUME
SW3001
IC5006
IC3007
IC3006
TAPE2
TAPE1
CD1
CD2
CD3
AUX
TUNER
MEMO
FWD
STOP
REV
REW
PRO
DOLBY
SW3002
BASS
POWER
KARA/DIMMER
MIXING
VR3001
TS3009
PRO ON/OFF
62* ONLY
TS3011
TS3012
TS3013
TS3014
TS3015
TS3016
TS3017
TS3018
TS3019
TS3020
TS3021
TS3022
TS3023
TS3024
TS3025
TS3026
TS3027
TS3028
W3007
W3008
W3011
W3013
C3011
EXCEPT 625K/425K
1
2
3
4
5
6
A
B
C
D

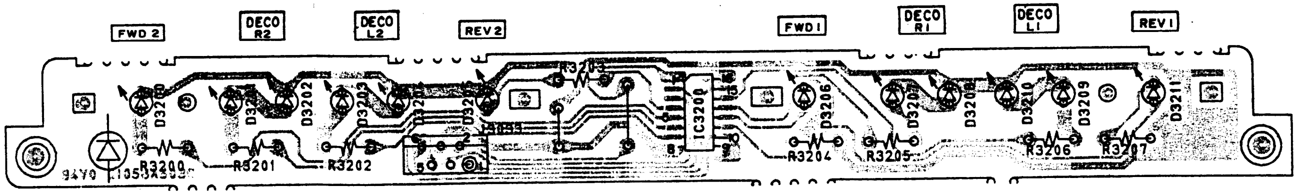
SYS420(A) PCB C1058A503A

*NOTE
42* INDICATES THE 420 SERIES MODELS.
62* INDICATES THE 620 SERIES MODELS.

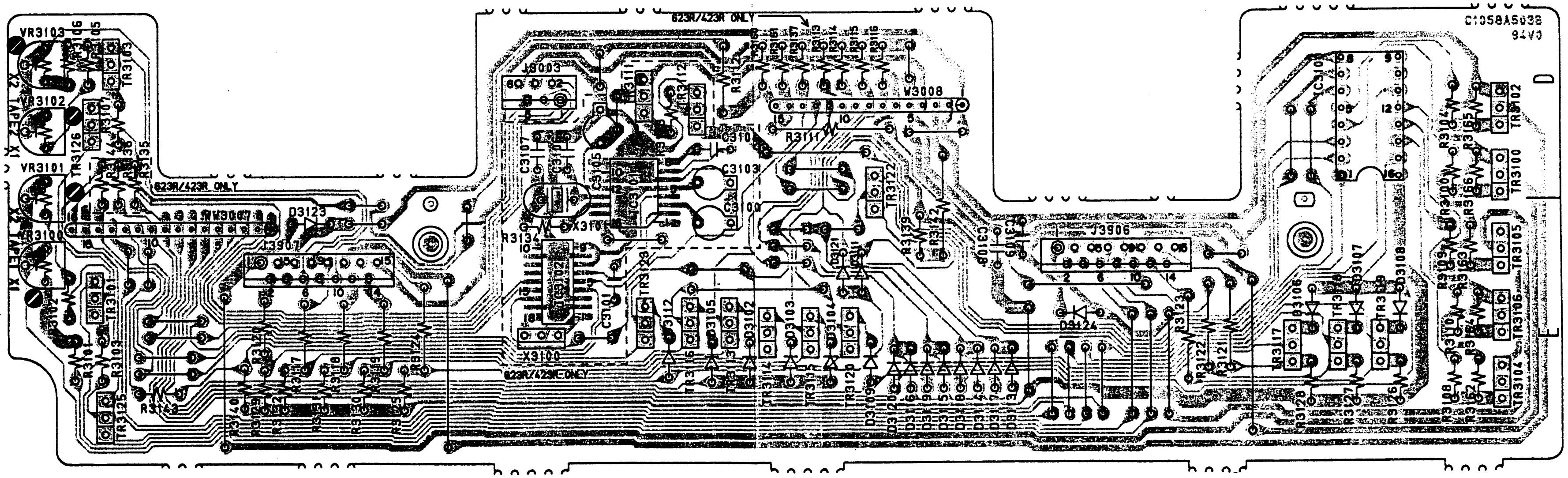
NOTE : PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.


PC-MIC JACK
J3401
J3402
MIC 2
MIC 1
W3011
W3401
C3401

SYS420(E) PCB C1058A503E


FWD 2
DECO R2
DECO L2
REV 2
FWD 1
DECO R1
DECO L1
REV 1
D3202
D3206
D3209
D3211
IC3200
R3200
R3201
R3202
R3203
R3204
R3205
R3206
R3207
94V0

SYS420(C) PCB C1058A503C


C1058A503B
94V0
623R/423R ONLY
VR3103
VR3102
VR3101
VR3100
TAPE2 X1
X2 TAPE1 X1
J3003
J3906
J3907
W3007
W3008
X3100
D3123
D3124
C3103
C3100
TR3100
TR3102
TR3104
TR3105
TR3106
TR3125
R3111
R3134
R3143
623R/423R ONLY

SYS420(B) PCB C1058A503B

NOTE: PARTS DIFFER DEPENDING ON MODEL NUMBER.
REFER TO SCHEMATIC DIAGRAMS FOR PERTINENT
PARTS INFORMATION.

INFORMATION OF ICS

CXA1782BQ (CD RF I-V AMP/RF AMP)

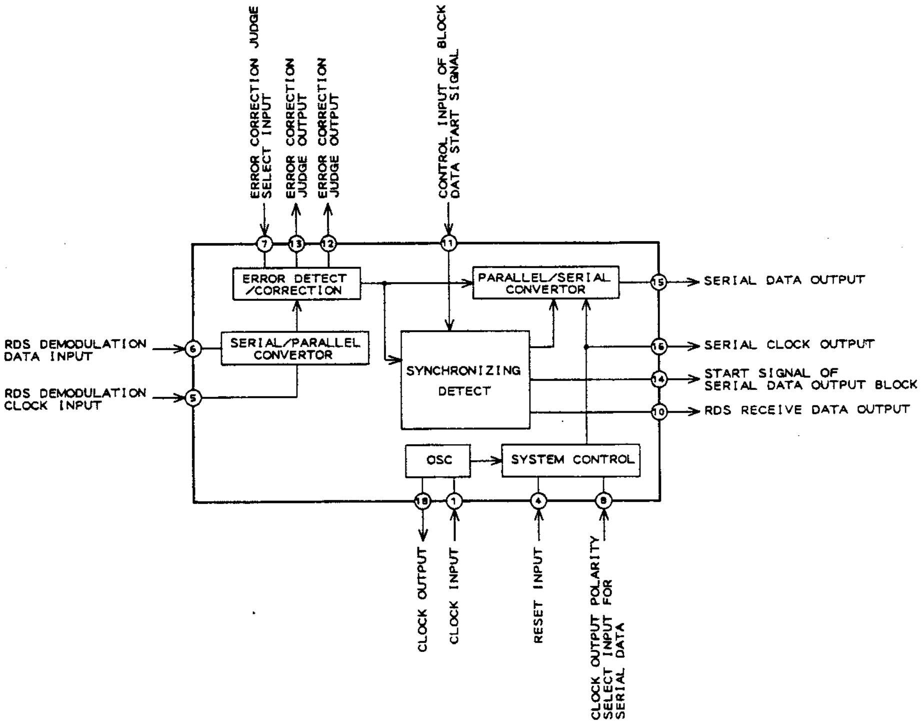
PIN No.	PORT NAME	I/O	FUNCTION
1	FEO	O	Focus drive output.
2	FEI	I	Focus error signal input.
3	FDFCT	I	Time constant capacitor connecting terminal at time of defect.
4	FGD	I	Connect condenser for Focus servo gain control.
5	FLB	I	Connect condenser for Focus servo correction.
6	FE-O	O	Focus drive output.
7	FE-M	I	FOCUS AMP Inverting input.
8	SRCH	I	Connect condenser for Focus search wave.
9	TGU	I	Connect condenser for Trackink gain select.
10	TG2	I	Connect condenser for Tracking gain select.
11	FSET	I	Terminal for peak setting for Focus tracking phase compensation.
12	TA-M	I	Tracking AMP Inverting input.
13	TA-O	O	Tracking drive output.
14	SL-P	I	Sled AMP non-inverting input.
15	SL-M	I	Sled AMP Inverting input.
16	SL-O	O	Sled drive output.
17	ISET	I	Focus search, Track jump and slide kick current input.
18	Vcc	–	+5 V
19	CLK	I	Clock signal input from the CD MI-COM.
20	XLT	I	Lutch signal input from the CD MI-COM.
21	DATA	I	Data signal input from the CD MI-COM.
22	$\overline{\text{XRST}}$	I	RESET input.
23	C.OUT	O	Track count signal output.
24	SENS	O	FZC,DFCT,TZC,GAIN and BAL output.
25	FOK	O	Focus OK signal output.
26	CC2	I	Input terminal of DEFECT bottom hold output which is supplied through capcitor.
27	CC1	O	DEFECT bottom hold output terminal.
28	CB	I	DEFECT bottom hold capacitor connecting terminal.
29	CP	I	Terminal for connection of MIRR hold capacitor. (Non inverted input terminal of MIRR comparator.)
30	RF-I	I	Input terminal of RF summing AMP output which is supplied through a capacitor.
31	RF-O	O	RF summing AMP output.
32	RF-M	I	RF summing AMP inverted input terminal.
33	LD	O	APC AMP output terminal.
34	PHD	I	APC AMP input terminal.
35	PHD1	I	RF I-V AMP inverted input terminal (for photo diode A+C of pick up)
36	PHD2	I	RF I-V AMP inverted input terminal (for photo diode B+D of pick up)
37	FE-BIAS	I	Terminal for bias adjustment of focus error amp.
38	F	I	RF I-V AMP inverted input terminal (for photo diode F of pick up)
39	E	I	RF I-V AMP inverted input terminal (for photo diode E of pick up)
40	EI	–	Not used
41	VEE	–	GND
42	TEO	O	Tracking error amp output terminal. (E-F signal output.)
43	LPFI	I	BAL adjustment of comperator input terminal.
44	TEI	I	Tracking error input terminal.
45	ATSC	I	Window comperator input input terminal for ATSC detection.
46	TZC	I	Input terminal of tracking zero cross comparator.
47	TDFCT	I	Time constant capacitor connecting terminal at time of defect.
48	VC	O	(Vcc+VEE)/2 DC voltage output terminal.

CXD2508AQ (CD DIGITAL SIGNAL PROCCESS & SYSTEM CONTROL MI-COM)

Pin No.	PORT NAME	I/O	FUNCTION
1	SCOR	O	H output when either sub code S0 or S1 is detected.
2	SBSO	O	Serial output of Sub P to W.
3	EXCK	I	Clock input for SBSO read out.
4	SQSO	O	Serial output of SUBQ 80 bit.
5	SQCK	I	Clock input for SQSO read out.
6	MUTE	I	Muteing control. (H : MUTE, L : CANCEL)
7	SENS	O	SENS output. Output to the OPERATION MI-COM.
8	$\overline{\text{XRST}}$	I	System reset. Reset at L.
9	DATA	I	Serial data input from THE OPERATION MI-COM.
10	XLAT	I	Latch input from the OPERATION MI-COM. (Latching of serial data at falling edge of the pulse.)
11	CLOK	I	Serial data transmission clock input from the OPERATION MI-COM.
12, 53	Vss	–	GND
13	SEIN	I	Sense input from SSP.
14	CNIN	I	Track jump number count signal input.
15	DATO	O	Serial data output to SSP.
16	XLTO	O	Serial data latch output to SSP. (Latching at fallingedge of the pulse.)
17	CLKO	O	Serial data transmission clock output to SSP.
18	SLED SW	I	Innermost position ON/OFF detection input of sled motor. (Input A)
19	SPOB	I	Innermost position ON/OFF detection input of sled motor. (Input B)
20	SPOC	I	Innermost position ON/OFF detection input of sled motor. (input C)
21	XLSL	I	X'tal selection input terminal. L when X'tal is 16.9344 MHz. H when 33.8688 MHz.
22	LD ON/OFF	O	Laser diode ON/OFF control.
23	FOK	I	Focus OK input terminal. For SENS output and servo automatic sequencer.
24	MON	–	Not used
25	MDP	O	Servo control for spindle motor.
26	MDS	–	Not used
27	LOCK	–	Not used
28	TEST	–	Regular GND for TEST terminal.
29	FILO	O	Filter output for master PLL. (slave = digital PLL)
30	FILI	I	Filter input for master PLL.
31	PCO	O	Charge pump output for master PLL.
33, 75, 76	AVss1 ~ 3	–	GND
34	CLTV	I	VCO control voltage input for master.
36	RF	I	EFM signal input.
37	BIAS	I	Asymmetry circuir constant current input.
38	ASYI	I	Asymmetry compilasion voltage input.
39	ASYO	O	EFM full swing output. (L = Vss, H = VDD)
40	ASYE	I	L : Asymmetry circuit OFF H : Asymmetry circuit ON.
41	WDCK	–	Not used
42	LRCK	O	D/A interface for 48 bit slot. LR clock f = Fs
43	LRCKI	I	LR clock input to DAC.
44	PCMD	O	Serial data from D/A interface.
45	PCMDI	I	Audio data input to DAC.
46	BCK	O	Bit clock from D/A interface.
47	BCKI	I	Bit clock input to DAC.
48	GTOP	–	Not used
49	XUGF	–	
50	XPCK	–	
51	GFS	–	
52	RFCK	–	
54	C2PO	–	
55	XROF	–	
56	MNT3	–	
57	MNT1	–	
58	MNT0	–	
59	FSTT	–	
60	C4MR	–	
61	DOUT	O	Digital out terminal.

Pin No.	PORT NAME	I/O	FUNCTION
62	EMPH	O	H output when a playback disc is emphasised. L output when no emphasis.
63	EMPHI	I	De-emphasis control input. (H : ON, L : OFF)
64	WFCK	O	WFCK (Write Frame Clock) output.
65	ZEROL	–	Not used
66	ZEROR	–	Not used
67, 79, 80	DTS1 ~ 3	–	GND
69	NLPWM	O	L-ch PWM output. (opposite phase)
70	LPWM	O	L-ch PWM output. (in-phase)
73	XTAI	I	33.8688 MHz X'tal oscillation circuit input.
74	XTAO	O	33.8688 MHz X'tal oscillation circuit output.
77	NRPWM	O	R-ch PWM output. (opposite phase)
78	RPWM	O	R-ch PWM output. (in-phase)

LC7073M (RDS DATA PROCESS)


ERROR CORRECTION JUDGE SELECT INPUT
ERROR CORRECTION JUDGE OUTPUT
ERROR CORRECTION JUDGE OUTPUT
CONTROL INPUT OF BLOCK DATA START SIGNAL
7
13
12
11
ERROR DETECT /CORRECTION
PARALLEL/SERIAL CONVERTOR
15
SERIAL DATA OUTPUT
RDS DEMODULATION DATA INPUT
6
SERIAL/PARALLEL CONVERTOR
SYNCHRONIZING DETECT
16
SERIAL CLOCK OUTPUT
14
START SIGNAL OF SERIAL DATA OUTPUT BLOCK
RDS DEMODULATION CLOCK INPUT
5
10
RDS RECEIVE DATA OUTPUT
OSC
SYSTEM CONTROL
18
1
4
8
CLOCK OUTPUT
CLOCK INPUT
RESET INPUT
CLOCK OUTPUT POLARITY SELECT INPUT FOR SERIAL DATA

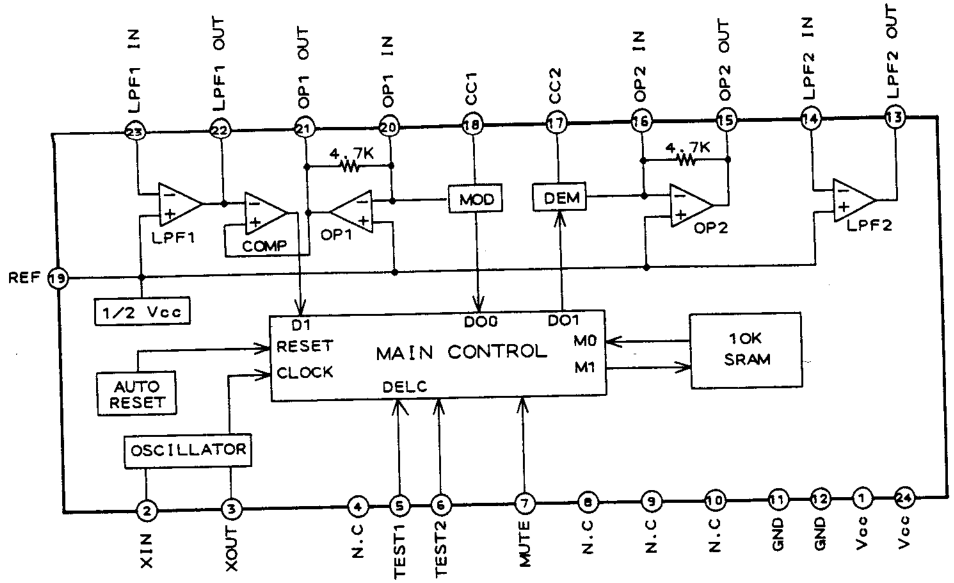
M38197MA-173FP/174FP (SYSTEM CONTROL MI-COM)

Pin No	PORT NAME	I/O	FUNCTION
1	PLL CLK	O	PLL clock signal output to the TUNER UNIT.
2	MAIN VR1	I	2 bit encoder input for electric volume control.
3	MAIN VR2		
4	PULSE 1	I	TAPE 1 reel pulse input.
5	PULSE 2	I	TAPE 2 reel pulse input.
6	LEVEL S	I	A/D input for surround level meter. (720 series only)
7	LEVEL C	I	A/D input for center level meter. (720 series only)
8	SPANA	I	A/D input for spectrum analyzer indication. (520/720 series only)
9	CLK LED	O	Clock output for LED section expansion IC.
10	PLL OUT	O	PLL control output to the TUNER UNIT.
11	STB FLD	O	Strobe pulse output to DOLBY PRO-LOGIC FLD drive IC. (720 series only)
12	CLK FLD	O	Clock output to DOLBY PRO-LOGIC FLD drive IC. (720 series only)
13	DATA FLD	O	Data output to DOLBY PRO-LOGIC FLD drive IC. (720 series only)
14	PHOTO IN	I	Input from the TRAY rotation position detect photo sensor.
15	CD XLAT	O	Latch output for the CD MI-COM.
16	CD CLK	O	Serial clock output to the CD MI-COM.
17	CD DATA	O	Serial data output to the CD MI-COM.
18	MODE SW	I	A/D input from the CD's open, close and clamp switches.
19	CLK TCDK	O	Clock output for controlling the expansion IC of the TUNER/CD/DECK section.
20	CD SQCK	O	SQCK clock output to the CD MI-COM.
21,85	N.C	–	No connection.
22	CD SQSO	I	SUBQ 80 bits serial input.
23	DATA DSC	O	Serial data output for controlling the DIGITAL SOUND CONTROL IC.
24	DATA	O	Serial data output to the expansion ICs (for KEY control & EVR ICs, etc.).
25	OSC PWM	O	Erasing OSC level control output.(PWM)
26	BOP	I	Blank output pulse input. (L : blank)
27	E²PR DAT	I/O	EEP ROM serial data input/output.
28	E²PR CLK	O	Serial clock output to EEP ROM.
29	CD SENS	I	Input pin for reading verious data from the CD MI-COM.
30	R CLK	I	Clock input from RDS data processor.
31	CLK DSC	O	Clock output to the DIGITAL SOUND CONTROLLOR.
32	REMOCON	I	Remote control signal input.
33	CLK AMP	O	Clock output to the expansion ICs (EVR, Key control, etc. among the PRE/MAIN AMP section).
34	CD SCOR	I	Sub code detect input from the CD MI-COM. (H : sub code 0 or 1 is detected)
35	RESET	I	Reset input
36	XC IN	I	32.768 kHz X'tal input for clock.
37	XC OUT	O	Output to the 32.768 kHz X'tal.
38	X IN	I	8.0 MHz X'tal input.
39	X OUT	O	Output to the 8.0 MHz X'tal.
40	GND-D	–	Digital ground.
41 - 44	KEY1 - 4	I	Key matrix input from the operation switches.
45 - 60	DIG 1 - 16	O	System FLD's grid drive output.
61 - 80	SEG 1 - 20	O	System FLD's segment drive output. (SEG 17~20 : 520/720 series only)
81	POW DOWN	I	Back up voltage detection input. (H : normal, L : Power down)
82	STB AMP	O	Strobe pulse output for AMP section expansion IC.
83	OE	O	Output enable control for expansion ICs. (L : enable, H : expansion IC output → high impedance).
84	STB VR	O	Strobe pulse output for EVR (electric volume) IC.
86	STB TCDK	O	Strobe pulse output for TUNER/DECK/CD section expansion ICs.
87	STB PRE	O	Strobe pulse output for PRE AMP section expansion IC.
88	STB MEC	O	Strobe pulse output for DECK MECHA. section expansion IC.
89	R DATA	I	Data input from RDS data processor.
90	R START	I	Start signal input from RDS data processor.
91	VCC	–	+5 V power supply.
92	R RESET	O	Reset output to RDS error correction IC. (L : reset)
93	STEREO	I	A/D input for the "STEREO" indicator.
94	TUNED	I	A/D input for the "TUNED" indicator.
95	STB LED	O	Strobe pulse output for LED section expansion IC.
96	PLL IN	I	PLL control input from the tuner unit.
97	PLL CE	O	PLL chip enable output to the tuner unit.
98	–VP	I	Negative power supply for FLD blanking.
99	VSS	–	To be grounded.
100	VREF	I	Reference voltage input. (+5 V)

M62422FP (SOUND CONTROLLER)

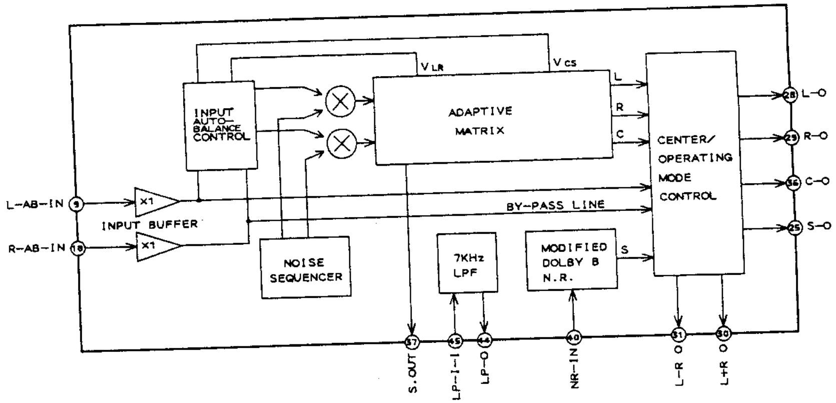
Pin No	PORT NAME	I/O	FUNCTION
1	CLOCK	I	Clock signal input pin for data transmission.
2	DATA	I	Control data input pin.
3	DVDD	–	Power supply for internal logic circuit.
4	VCUT	–	Capacitor connecting pin for vocal cut.
5	SUROUT	O	This pin outputs surround (L-R or L+R) signal and vocal cut signal.
6	IN1	I	Channel 1 input pin.
7	KEYCON1	O	Output pin to the key control circuit.
8	MIC IN1	I	Mic signal input pin during KARAOKE function.
9	INBASS1	I	BASS resonant bufferring AMP input pin.
10	NFBASS1	O	BASS resonant bufferring AMP output pin.
11	FBASS1	–	BASS BPF (resonant AMP) connecting pin.
12	INMID1	I	MID resonant bufferring AMP input pin.
13	NFMID1	O	MID resonant bufferring AMP output pin.
14	FMID1	–	MID BPF (resonant AMP) connecting pin.
15	FTRE1	–	TREBLE BPF connecting pin.
16	REC OUT1	O	Channel 1 REC OUT pin.
17	FBB1	I	BASS boost BPF (resonant AMP) connecting pin.
18	NFBB1	O	BASS boost resonant bufferring AMP output pin.
19	INBB1	I	BASS boost resonant bufferring AMP input pin.
20	OUT1	O	Channel 1 output pin.
21	AGND	–	Internal analog circuit grounding pin.
22	AVss	–	Negative power supply pin for internal analog circuit.
23	OUT2	O	Channel 2 output pin.
24	INBB2	I	BASS boost resonant bufferring AMP input pin.
25	NFBB2	O	BASS boost resonant bufferring AMP output pin.
26	FBB2	–	BASS boost BPF (resonant AMP) connecting pin.
27	REC OUT2	O	Channel 2 REC OUT pin.
28	FTRE2	–	TREBLE BPF connecting pin.
29	FMID2	–	MID BPF (resonant AMP) connecting pin.
30	NFMID2	O	MID resonant bufferring AMP output pin.
31	INMID2	I	MID resonant bufferring AMP input pin.
32	FBASS2	–	BASS BPF (resonant AMP) connecting pin.
33	NFBASS2	O	BASS resonant bufferring AMP output pin.
34	INBASS2	I	BASS resonant bufferring AMP input pin.
35	MIC IN2	I	Mic signal input pin during KARAOKE function.
36	KEYCON2	O	Output pin to the key control circuit.
37	IN2	I	Channel 2 input pin.
38	SUR R	–	Time constant setting capacitor connectig pin for the surround circuit.
39	SUR C	–	Time constant setting capacitor connectig pin for the surround circuit.
40	AVDD	–	Positive power supply pin for internal analog circuit.
41	DGND	–	Internal logic circuit grounding pin.
42	N.C	–	No connection.

M65843AFP (DIGITAL ECHO)


LPF1 IN
LPF1 OUT
OP1 OUT
OP1 IN
CC1
CC2
OP2 IN
OP2 OUT
LPF2 IN
LPF2 OUT
23
22
21
20
18
17
16
15
14
13
4.7K
4.7K
LPF1
COMP
OP1
MOD
DEM
OP2
LPF2
REF
19
1/2 Vcc
D1
RESET
CLOCK
MAIN CONTROL
DO0
DO1
M0
M1
DELC
10K
SRAM
AUTO
RESET
OSCILLATOR
2
3
4
5
6
7
8
9
10
11
12
1
24
XIN
XOUT
N.C
TEST1
TEST2
MUTE
N.C
N.C
N.C
GND
GND
Vcc
Vcc

PIN No.	PORT NAME	I/O	FUNCTION
1	VDD	–	+5 V power supply for digital section.
2	X IN	I	X'tal OSC input.
3	X OUT	–	X'tal OSC output.
4	NC	–	No connection.
5	TEST 1	I	Test pin (fixed H in the normal condition).
6	TEST 2	I	Test pin (fixed L in the normal condition).
7	MUTE	I	Mute control input (L : mute).
8 ~ 10	NC	–	No connection.
11	D.GND	–	Digital ground.
12	A.GND	–	Analog ground.
13	LPF2 OUT	O	Constructs the output side low pass filter from the externally connected capacitor & resistor.
14	LPF2 IN	I	
15	OP2 OUT	O	Constructs the integrator for demodulation from the externally connected capacitor & resistor.
16	OP2 IN	I	
17	CC2	–	Current control for demodulator ADM control.
18	CC1	–	Current control for modulator ADM control.
19	REF	–	Analog reference voltage (1/2 Vcc).
20	OP1 IN	I	Constructs the integrator for modulation from the externally connected capacitor & resistor.
21	OP1 OUT	O	
22	LPF1 OUT	O	Constructs the input side low pass filter from the externally connected capacitor & resistor.
23	LPF1 IN	I	
24	Vcc	–	+5 V analog power supply.

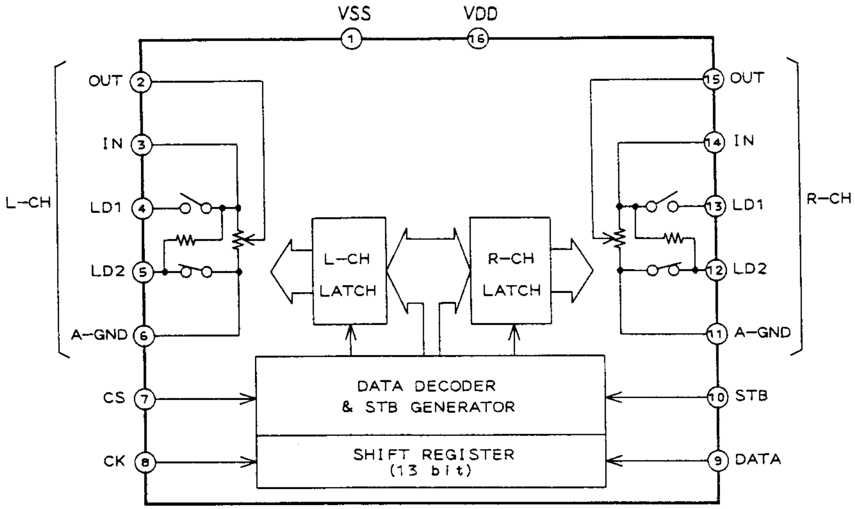
NJM2177A FB3 (DOLBY PRO LOGIC SURROUND DECODER)


INPUT AUTO-BALANCE CONTROL
VLR
VCS
ADAPTIVE MATRIX
L
R
C
CENTER/ OPERATING MODE CONTROL
28 L-O
29 R-O
36 C-O
25 S-O
L-AB-IN 9
R-AB-IN 18
X1
X1
INPUT BUFFER
BY-PASS LINE
NOISE SEQUENCER
7KHz LPF
MODIFIED DOLBY B N.R.
S
57 S.OUT
45 LP-I-I
44 LP-O
40 NR-IN
31 L-R O
30 L+R O

SAA6579T (RDS DEMODULATOR)

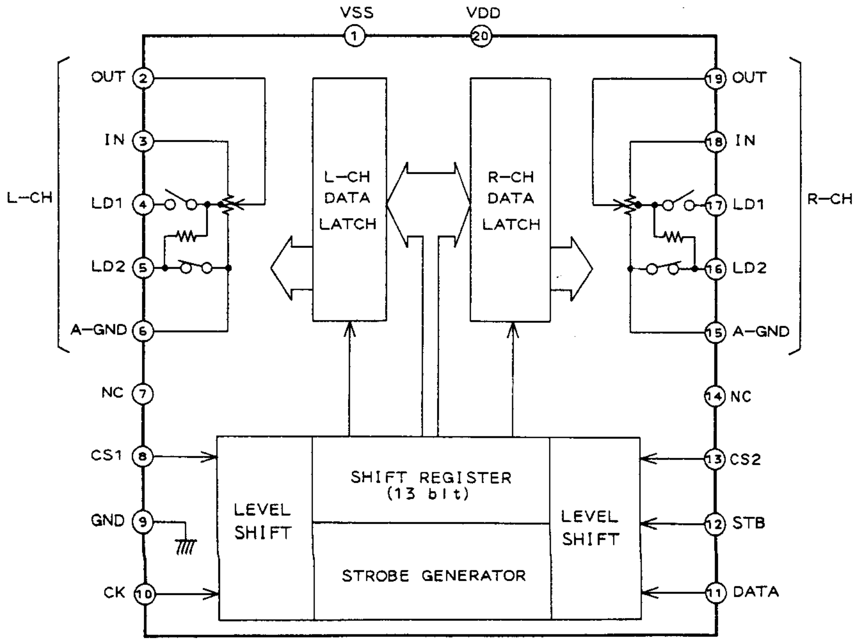
PIN No	PORT NAME	I/O	FUNCTION
1	QUAL	O	QUALITY INDICATION OUTPUT
2	RDDA	O	RDS DATA OUTPUT
3	VREF	—	REFERENCE VOLTAGE OUTPUT
4	MUX	I	MULTIPLEX SIGNAL INPUT
5	VDD	—	+5 V SUPPLY VOLTAGE FOR ANALOG PART
6	VSS	—	GND FOR ANALOG PART
7	CIN	I	SUBCARRIER INPUT TO COMPARATOR
8	SCOUT	O	SUBCARRIER OUTPUT OF RECONSTRUCTION FILTER
9	MODE	I	OSCILLATOR MODE / TEST CONTROL INPUT
10	TEST	I	TEST ENABLE INPUT
11	VSS	—	GND FOR DIGITAL PART
12	VDD	—	+5 V SUPPLY VOLTAGE FOR DIGITAL PART
13	OSC1	I	OSCILLATOR INPUT
14	OSC0	O	OSCILLATOR OUTPUT
15	T57	O	57 kHz CLOCK SIGNAL OUTPUT
16	RDCL	O	RDS CLOCK OUTPUT

TC9260P (ELECTRIC VOLUME CONTROL)



VSS
VDD
1
16
OUT 2
IN 3
LD1 4
LD2 5
A-GND 6
CS 7
CK 8
L-CH
15 OUT
14 IN
13 LD1
12 LD2
11 A-GND
10 STB
9 DATA
R-CH
L-CH LATCH
R-CH LATCH
DATA DECODER & STB GENERATOR
SHIFT REGISTER (13 bit)

TC9412P (ELECTRIC VOLUME CONTROL)



VSS
VDD
1
20
OUT 2
IN 3
LD1 4
LD2 5
A-GND 6
NC 7
CS1 8
GND 9
CK 10
L-CH
19 OUT
18 IN
17 LD1
16 LD2
15 A-GND
14 NC
13 CS2
12 STB
11 DATA
R-CH
L-CH DATA LATCH
R-CH DATA LATCH
LEVEL SHIFT
SHIFT REGISTER (13 bit)
STROBE GENERATOR
LEVEL SHIFT

AMPLIFIER

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouNd
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECord
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder